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# **Assessing Young Learners' Strategic L2 Vocabulary Learning in the Framework of Self-Regulation**

PhD DISSERTATION

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Szeged  
2014

## ACKNOWLEDGEMENTS

I would like to express my very great appreciation to my supervisor, Dr. Donald W. Peckham, for his valuable and constructive suggestions during the planning and development of this dissertation. His willingness to give his time and expertise so generously has been invaluable. Without his supervision and constant help this dissertation would not have been possible. I would also like to express my heartfelt gratitude to Professor Miklós Kontra and the instructors of the English Applied Linguistics PhD Programme of the Graduate School of Linguistics at the University of Szeged for introducing me to linguistics. Advice given by the pre-opponents of the dissertation has been a great help in finalizing the paper.

I am also greatly indebted to the English teachers at various primary schools in Kecskemét, who were always willing to find time and to help me organize and carry out research with their language learners. My special thanks are extended to the staff of Petőfi Sándor Practice Primary School and Magyar Ilona Primary School. I would also like to thank the children who volunteered in the different areas of the research for the unique data they were able to provide me with.

I would also like to thank my immediate colleagues at the Kecskemét College Teacher Training Faculty for their help, sympathy, and encouragement throughout my doctoral studies.

Last but not least, I am deeply indebted to my family for the patience and support during the long years in which my project has been in the making. Special thanks should be given to my daughter who had to spend the first years of her childhood in an unsettled family life.

## **ABSTRACT**

Strategies used for learning a second language have been in the centre of research for more than three decades. However, in the study of second language acquisition the emphasis has only recently shifted to studying learning strategies in the broader framework of self-regulation. The aim of the present dissertation is to contribute to second language research by investigating Hungarian primary school learners' vocabulary learning strategies in English as a foreign language from this broadening perspective. The research was designed to assess strategic vocabulary learning, to propose categories of young learners' self-regulated vocabulary learning behaviour, and highlight age-related differences in this area. More than 400 learners took part altogether in the research in three age groups representing the population of language learners in a Hungarian primary school setting. Owing to the cognitive nature of strategic language learning, data sources were primarily based on the participants' own perceptions of their learning process in the form of interviews and questionnaires, complemented by data obtained in classroom observation. The successive parts of the research, irrespective of the data collection method, were strongly based on each other in order to provide a large database, and to guarantee the feasibility of developing a final quantitative instrument. The results indicate that young learners use a variety of strategies to learn vocabulary, are aware of what they are doing to learn words, use self-motivational strategies, and employ their self-regulating capacity; consequently they can be considered as self-regulated in learning vocabulary. The classification of strategies yielded the aforementioned categories of young learners' self-regulated vocabulary learning. As for age-related differences, the youngest surprisingly proved to be the most strategic in vocabulary learning, indicating that self-regulation in vocabulary learning has developed by the age of 8-9. The finding that the oldest primary school learners were the second most strategic implies that although there is a certain change in self-regulated vocabulary learning, it does not show a linear development in the strongest sense and requires further explanation. The quantitative questionnaire that was developed and validated throughout the research can be used to measure young learners' vocabulary learning in different contexts. A further and probably the most important outcome of the research are the various implications for teachers and teacher trainers.

## TABLE OF CONTENTS

<b>CHAPTER 1</b>	1
<b>THE STATEMENT OF THE PROBLEM AND ITS SETTING</b>	1
1.1 Statement of the problem	2
1.2 Conceptual background and terminology	4
1.2.1 Young learners	4
1.2.2 Language learning context	5
1.2.3 Knowing a word	7
1.2.4 Learning a word	8
1.2.5 Word vs. vocabulary learning	9
<b>CHAPTER 2</b>	12
<b>REVIEW OF THE LITERATURE</b>	12
2.1 Attention and awareness in L2 learning	12
2.1.1 Conscious vs. unconscious use of language learning strategies	15
2.2 Language learning strategies	16
2.2.1 Defining language learning strategies	16
2.2.2 Classification of language learning and vocabulary learning strategies	18
2.2.3 Vocabulary learning strategies of young learners	22
2.2.4 Development of vocabulary in young learners	25
2.2.5 Concerns about strategies	27
2.2.6 The relevance of strategy trainings	28
2.3 Research on young learners' learning strategies and vocabulary learning	31
2.4 Self-regulated language learning	35
2.4.1 Self-regulation and strategic language learning	35
2.4.2 Self-regulating capacity in vocabulary learning	38
2.4.3 Metacognition	40
2.4.4 Motivation and self-motivation	42
2.5 Summary	45
<b>CHAPTER 3</b>	46
<b>METHODOLOGICAL CONSIDERATIONS AND OVERVIEW</b>	46
3.1 Research aim	46
3.1.1 Research goals and questions	46
3.2 Methodological considerations and overview	48
3.3 Overview of methodology	49
3.3.1 Participants and settings	50
3.3.2 Making the instruments appropriate to learners' needs	51
3.3.3 Procedures	52
3.4 Summary	59
<b>CHAPTER 4</b>	60
<b>PHASE 1: ELICITING AND ANALYSING YOUNG LEARNERS' VOCABULARY LEARNING STRATEGIES AND SELF-REGULATED LANGUAGE LEARNING BEHAVIOUR</b>	60
4.1 Phase I part 1: Semi-structured interviews	60
4.1.1 Method	60
4.1.2 Results and discussion	62
4.1.3 Results and discussion concerning awareness of strategy use	97
4.1.4 Results and discussion of age-related differences in strategic vocabulary learning	100

4.1.5 Case studies .....	103
4.1.6 General discussion for Phase I part 1 .....	107
4.1.7 Summary of Phase I part 1 .....	111
4.2 Phase I part 2: Collecting data by observation and retrospective interviews .....	112
4.2.1 The goal of classroom observation.....	112
4.2.2 Method .....	113
4.2.3 Results of the observation .....	114
4.2.4 Retrospective interviews .....	116
4.2.5 Discussion of Phase I part 2 .....	119
4.2.6 Summary of Phase I part 2 .....	120
4.3 Summary of Phase I .....	120
<b>CHAPTER 5 .....</b>	<b>121</b>
<b>PHASE II: COLLECTING DATA ON YOUNG LEARNERS' SELF-REGULATED VOCABULARY LEARNING: CREATING AND DEVELOPING THE QUANTITATIVE INSTRUMENT .....</b>	<b>121</b>
5.1 Phase II part 1: Describing and validating the structured questionnaire .....	121
5.1.1 Describing the structured questionnaire .....	121
5.1.2 Validating the structured questionnaire by a focus group interview .....	122
5.2 Phase II part 2: Structured interviews .....	123
5.2.1 The goal of collecting structured data on young learners' self-regulated vocabulary learning .....	124
5.2.2 Method .....	124
5.2.3 Results .....	125
5.2.4 Summary .....	127
5.3 Phase II part 3 Developing and piloting the quantitative questionnaire .....	128
5.3.1 The quantitative questionnaire .....	128
5.3.2 Piloting the quantitative questionnaire .....	130
5.3.3 Age-related differences .....	134
5.3.4 Discussion of the results.....	139
5.3.5 The quantitative questionnaire – Final version .....	142
<b>CHAPTER 6 .....</b>	<b>144</b>
<b>PHASE III: MEASURING YOUNG LEARNERS' SELF-REGULATED VOCABULARY LEARNING: USING THE QUANTITATIVE INSTRUMENT .....</b>	<b>144</b>
6.1 Method .....	144
6.2 Results .....	145
6.2.1 Measuring young learners' SRV learning across the age groups.....	145
6.2.2 Measuring age-related differences in young learners' SRV learning .....	149
6.3 Discussion of the results.....	156
6.3.1 The construction of the final quantitative questionnaire .....	156
6.3.2 Measuring young learners' SRV learning .....	158
6.4 Conclusion of the quantitative study .....	167
<b>CHAPTER 7 .....</b>	<b>169</b>
<b>GENERAL DISCUSSION.....</b>	<b>169</b>
7.1 Introduction .....	169
7.2 Answering the research questions .....	169
<b>CHAPTER 8 .....</b>	<b>174</b>
<b>SUMMARY AND IMPLICATIONS.....</b>	<b>174</b>
8.1 Summary .....	174
8.2 Limitations .....	176
8.3 Implications .....	178

8.3.1 Implications for teachers and teacher training .....	181
8.4 Future research .....	185
<b>REFERENCES</b> .....	187
<b>APPENDICES</b> .....	201
Appendix 1: List of abbreviations .....	201
Appendix 2: Consent forms.....	202
Appendix 2.1: Consent form for school teachers and school management .....	202
Appendix 2.2: Consent form for children's parents .....	202
Appendix 3: Interview questions used in Phase I part 1 .....	203
Appendix 4: Case studies .....	204
Appendix 4.1: Case study 1 .....	204
Appendix 4.2: Case study 2.....	207
Appendix 5: Question observation and retrospective interviews.....	209
Appendix 5.1: Vocabulary for learning in the classroom observation part .....	209
Appendix 5.2: Results of the classroom observation part (Phase I part 2) .....	210
Appendix 5.3: Excerpts of the retrospective interviews (Phase I part 2) .....	211
Appendix 6: Questionnaires for the structured interviews (developed in Phase I) .....	214
Appendix 6.1: Questionnaire for the structured interviews (Hungarian) .....	214
Appendix 6.2: Questionnaire for the structured interviews (English translation).....	215
Appendix 7: Results of the structured interviews (Phase II part 1) .....	216
Appendix 7.1: Results of the structured interviews (Hungarian) .....	216
Appendix 7.2: Result of the structured interviews (English translation) .....	219
Appendix 8: Quantitative questionnaire – Pilot version (developed in Phase II part 2) .....	223
Appendix 8.1: Quantitative questionnaire – Pilot version (Hungarian) .....	223
Appendix 8.2: Quantitative questionnaire – Pilot version (English – translated) .....	226
Appendix 9: .....	229
Appendix 9.1: The arrangements of the categories and items in the quantitative questionnaires .....	229
Appendix 9.2: Item numbers in the quantitative questionnaires .....	229
Appendix 9.3: The questions of the final questionnaire grouped by the categories .....	230
Appendix 10: Tables belonging to Phase II part 3 of the research .....	233
Appendix 10.1: Descriptive statistics of the individual strategies in the pilot study .....	233
Appendix 10.2: Homogenous subsets of the differences in strategy use in the pilot study .....	234
Appendix 11: Quantitative questionnaire – Final version.....	236
Appendix 11.1: Quantitative questionnaire – Final version (Hungarian) .....	236
Appendix 11.2: Quantitative questionnaire – Final version (English – translated) .....	239
Appendix 12: Tables belonging to Phase III .....	242
Appendix 12.1: Descriptive statistics of the items in descending order in the main study .....	242
Appendix 12.2 Homogenous subsets of the differences in strategy use in the main study .....	243

## LIST OF TABLES

Table 1: Taiwanese elementary school learners' strategy profile .....	23
Table 2: Self-regulating capacity in vocabulary learning scale (SRCVoc).....	39
Table 3: Summary of the methods used in the three phases of the research.....	52
Table 4: The categories and subcategories which emerged from the personal interviews .....	64
Table 5: Summary of vocabulary learning strategies used by young learners .....	83
Table 6: Summary of types of motivation.....	88
Table 7: Summary of self-regulating capacity and self-motivation in learning vocabulary ....	97
Table 8: Results of the classroom observation.....	116
Table 9: Descriptive statistics of the categories in the pilot study .....	131
Table 10: Reliability of the categories in the pilot study .....	133
Table 11: Correlation matrix of the categories in the pilot study.....	133
Table 12: Descriptive statistics of the categories by age groups in the pilot study.....	134
Table 13: Significant mean differences of the categories between the age groups in the pilot study .....	135
Table 14: Mean values of the age groups in the categories in the pilot study .....	136
Table 15: Correlation matrix of the categories in age group 1 in the pilot study.....	136
Table 16: Correlation matrix of the categories in age group 2 in the pilot study.....	137
Table 17: Correlation matrix of the categories in age group 3 in the pilot study.....	138
Table 18: Descriptive statistics of the categories in the main study .....	146
Table 19: Reliability of the categories in the main study.....	147
Table 20: Correlation matrix of the categories in the main study .....	148
Table 21: Descriptive statistics of the categories by age groups in the main study .....	149
Table 22: Mean differences of the categories between the age groups in the main study .....	151
Table 23: Mean differences of the age groups in the categories in the main study .....	152
Table 24: Correlation matrix of the categories in age group 1 in the main study.....	153
Table 25: Correlation matrix with the new category of self-motivation in age group 1 in the main study .....	153
Table 26: Correlation matrix of the categories in age group 2 in the main study.....	154
Table 27: Correlation matrix of the categories in age group 3 in the main study .....	155
Table 28: Young learners' marks in EFL and their liking of English.....	161

## LIST OF FIGURES

Figure 1: Learner's test written after the classroom observation part – using lines.....	210
Figure 2: Learner's test written after the classroom observation part – using drawings .....	210
Figure 3: The use of the categories between the age groups.....	150
Figure 4: Age-related differences in the use of the categories .....	150

*“[...] it is not easy to get inside the ‘black box’ of the human brain and find out what is going on there. We work with what we can get, which, despite the limitations, provides food for thought [...]”* (Grenfell & Harris, 1999, p. 54)

## **CHAPTER 1**

### **THE STATEMENT OF THE PROBLEM AND ITS SETTING**

#### **Introduction**

In recent years, the importance of vocabulary learning has been recognized with the emphasis shifting to communicative language learning. The success of vocabulary learning, just like being successful in learning any other language feature, depends on a number of factors which regulate the process of learning a language. Among these factors, vocabulary learning strategies, metacognition, self-regulating capacity, motivation, and self-motivation are of crucial importance. All these factors can be identified as basic constituents of self-regulated language learning. This concept has been used recently instead of language learning strategies in order to eliminate conceptual ambiguity of the term and to describe the process of language learning more adequately (Dörnyei, 2009). In this section I outline the terminology essential to circumscribe the research domain, and then I consider vocabulary learning from several aspects. Since the notions of attention and awareness embrace the whole research, first, I discuss vocabulary learning in this framework. After that, the relevance of the above-mentioned factors of self-regulated language learning are outlined.

The goal of the present dissertation is to provide an overall picture of young learners' strategic vocabulary learning in a foreign language setting in the larger framework of self-regulation by highlighting age-related differences. First, strategies generally contributing to vocabulary learning are explored by the means of personal interviews and classroom observation in order to find out how strategic young learners are when learning vocabulary and to collect primary data for the research. Based on the qualitative data, as a result of the developing process, a quantitative instrument is designed to measure young learners' self-regulated vocabulary learning. After the validation procedure, the instrument is used to assess how young learners belonging to different age groups learn vocabulary. The results are interpreted to provide a comprehensive view of young children's self-regulated vocabulary learning in English as a foreign language in a Hungarian context.



## 1.1 Statement of the problem

The motivation for investigating young learners' (YLS)<sup>1</sup> self-regulated vocabulary learning can be elucidated by a closer look at the elements of this complex term. In the literature review, I intend to provide answers to the questions of why young learners are in the centre of the research, why vocabulary learning is the focus, why language learning strategies are going to be explored, and, last but not least, why all of these are discussed within the framework of self-regulated vocabulary learning.

Although research on learning strategies dates back about thirty years, there is a lack of investigation of language learning strategies (LLS) and vocabulary learning strategies (VLS) used by young learners. Most studies of second language (L2) learning strategies have focused on secondary school, college, or university students and on adult language learners all over the world (Cohen, 2012; Fraser, 1999; Green & Oxford, 1995; Ikeda, 2007; Macaro, 2001; Oxford, 1989; Schmitt, 1997; Tseng, Dörnyei, & Schmitt 2006; Tseng & Schmitt, 2008), as well as in Hungary (Hardi, 2010b; Kontra, 1996; Kontra, 2004; Mónos, 2004). Although the broader frameworks of learning strategies and self-regulated learning have been discussed in Hungary by pedagogy and psychology experts concerning learning in general (Horváthné, 2008), consultation of recent issues of the most important Hungarian periodicals in the more specific domains of young learners' language learning strategies, vocabulary learning strategies and self-regulated language learning indicates that these issues have not yet been broadly investigated in Hungary. Published research on young learners' language learning strategies is limited to a few excellent studies (Nikolov, 1999a; Nikolov, 2003a,b), and self-regulated second language vocabulary learning has not been explored until now. Therefore, in order to bridge this gap in the research in this age group, YLS are the focus of the present investigation. To explore how YLS acquire a foreign language (FL) is important not only because they may exhibit different patterns of strategic learning than their older peers, but because their knowledge of their strategies can function as a basis for later development and refinement of the way they learn.

Furthermore, my interest in this specific language learning domain can chiefly be explained with the significance attached to the mastery of lexis in the second language acquisition process (Milton, 2009), as well as with the need to restrict the term 'language learning', which is too broad to consider as a whole. This term is often used to cover various processes in second language acquisition (SLA) depending on the targeted language area;

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<sup>1</sup> A list of abbreviations can be found in Appendix 1.

thus, in order to make the process describable, a particular language learning domain is required (see also Tseng et al., 2006). Given that strategic language learning is in the centre of this research discussed in relation to the specific field of young learners' vocabulary learning in English, the detailed description of data collection and evaluation procedures as well as the instrument that is ultimately developed may serve as a pattern for expanding the investigation to other languages or content areas.

Although the study of language learning strategies has gone through several stages, there is little agreement on either the concept or the classification of strategies. The great variety of strategies employed for language learning has proved to be difficult to group in simple clusters. Also, there seems to be an endless chain of strategies learners employ when acquiring a language, and the choice and use of strategies are influenced by a variety of factors, such as individual characteristics, language tasks, and language learning settings. This fact questions the necessity of studying learning strategies as constituting an individual category that supports language learning and calls for the admittance of other facets of language learning, which in combination can support the process more effectively (Dörnyei, 2005). Tseng et al. (2006, p. 79) also argue that in the progress of strategy research the notion of 'language learning strategies' has changed considerably, and nowadays the term 'learning strategy' is almost entirely restricted to pedagogical use, and rarely appears in L2 research publications. However, there are scholars who still believe in the importance of strategies and are committed to strategy research (Gao, 2006; Oxford, 2011; Rose, 2012). The term 'language learning strategies' is, however, substituted either by 'learner strategies' or 'strategic learning' (Cohen & Macaro, 2007). Nevertheless, there is still considerable fuzziness in defining both the notion and construction of language learning strategies. Therefore, the broader concept of self-regulated language learning provides a starting point for this investigation, which involves not only strategic language learning but also features that can be explored in terms of metacognition, self-regulating capacity, and motivation, since all these factors together seem to interact in the whole learning process. As Tseng et al. (2006) argue, the most important feature of strategic learning is not the specific strategies students employ when they learn a foreign language but rather the fact that they exert creative effort to make their own learning more efficient and successful. The most important factors which serve creative effort are the above mentioned ones, whose constituents seem to be responsible for the success of L2 acquisition and, thus, for the acquisition of vocabulary.

Since language learning, and, thus, vocabulary learning is a process of acquiring not only the second-language material itself, but also strategies that directly or indirectly conduct

learning and self-regulatory mechanisms which clear the ground for successful vocabulary learning, it is presumed that the constituents of the process are in mutual dynamic interaction with one another. Tseng and Schmitt (2008) offered a structural equation modelling approach of adult learners' motivational vocabulary learning that discussed the process in relation to a number of dynamic variables. As the authors claim, the model of vocabulary learning follows a developmental mode and functions as a cyclic process. Vocabulary acquisition seems to vary in time and by proficiency level, and its incremental nature contributes to the temporary progress or retreat in the comprehensive system of vocabulary learning. In other words, this system is supposed to be recursive, which feeds from the active interaction between its constituents. Moreover, if vocabulary acquisition is seen as an ongoing process, the system of vocabulary learning can shape an upward spiral with occasional setbacks. These assumptions also highlight the importance of studying what YLs do when learning a foreign language in different age groups, since their strategic learning and self-regulated behaviour are supposed to develop with time and proficiency. Given the cyclical, long-term nature of the language learning progress, the improvement of both strategic thinking and self-regulation is a crucial determinant of success.

## **1.2 Conceptual background and terminology**

In this section, terms essential to the understanding of the theoretical background in the paper are defined. These are the following: young learners, language learning context, knowing a word, learning a word, and word or vocabulary learning. Since learning strategies are in the focus of the research, the definition and classification of learning strategies including vocabulary learning strategies are also discussed in the literature review.

### **1.2.1 Young learners**

The definition of the age group considered to be young varies to a great extent. In the European Union member states there is an agreement that pre-school children from three to six are called 'very young learners', and primary school pupils from seven to twelve are called 'young learners'. In certain contexts, learners up to the age of fourteen can be included in the 'young learners' group (Nikolov & Mihaljevič Djigunović, 2011). As for the present research, children between the ages of six and fourteen are treated as YLs because they are all

primary school pupils, i.e. they start, continue and probably finish their studies in this specific form of the Hungarian education system.

Young learners, especially at the lower-primary level, have little experience in learning a new language in general and vocabulary in particular because they have only recently begun to learn the foreign language. Language learning in Hungary is compulsory from grade 4 (age 9-10), and the number of lessons per week varies between schools. Some primary schools, however, provide children with the opportunity to start a foreign language from the first grade. Recently there has been also a growing tendency to start a foreign language in the nursery school or even before.

Since there are certainly recognisable differences in the cognitive, metacognitive and self-regulatory development of children across the broad age group of primary school pupils (Gósy, 1999; Pléh, 2006), these differences are also in the focus of my investigation.

### **1.2.2 Language learning context**

Second language acquisition or foreign language learning is the process by which a language is learnt in addition to the first language. Since the learning of second and foreign languages involves the same fundamental processes in different settings, SLA research also makes enquiries about the acquisition of foreign languages and aims to describe the same processes in diverse language contexts. However, for practical reasons, it can be useful to make a distinction between second and foreign language environments because there is a considerable difference between these forms of language acquisition in many aspects. A second language functions as the medium of everyday communication where the quantity and quality of input language learners get is abundant and the language is essential for survival, and, thus, motivation to learn the language is typically strong. Foreign language learning, in contrast, occurs in an environment where the language is not the primary means of daily interaction, it is not needed for survival, input is rather limited, and learner motivation varies to a great extent (Dörnyei, 2009; Lightbown & Spada, 2006; Oxford, 2003a).

In both learning environments, mastering vocabulary is one of the most challenging tasks a language learner must face while acquiring the language. However, in a foreign language environment, the extremely limited exposure to the target language in daily life can hinder the natural process of language acquisition. Language learning normally takes place in the classroom, and is, thus, driven by instructional purposes. Therefore, ongoing processes in the foreign language classroom must be of crucial importance since methods applied in

teaching can determine the quality and quantity of language learning outcome. If teachers built upon the ‘focus on form’ (FonF) approach (Dörnyei, 2009; Long, 1991) to foreign language learning and employed methods based on interaction, extended exposure would be given to learners in a foreign language context. In the English as a foreign language (EFL) settings in Hungary, however, forms-based methods are still widespread use and at the centre of instruction at the expense of methods that emphasize meaningful communication (Dörnyei, 2009). Classroom research (Hardi, 2011b; Nikolov, 2008, 2011) suggests that teachers usually follow methods, which may not provide enough and adequate encounter with the target language and, therefore, further impede natural learning processes. Others argue (Budai, 2013; Orosz, 2008) that the actual problems of vocabulary acquisition in a foreign language context draws the attention to teachers’ inadequate teaching and assessing methods, which do not facilitate learners’ vocabulary acquisition in the long run. Vocabulary test taking in school practice measures learners’ diligence and abilities to learn word lists, and fails to address their actual development. Different approaches should be applied to make vocabulary learning easier and more successful, and both periodic and cumulative vocabulary revision should be employed in language teaching. Moreover, possessing language skills seems not to allow the acquisition of a large vocabulary in a short time (Oxford & Scarcella, 1994), thus, learners’ self-regulation must be stimulated in the FL learning context.

While second language acquisition can be supported and facilitated by the social context in which the learners live, in a foreign language context the target language is rarely used for everyday purposes, especially in the case of young learners, and is predominantly limited to the classroom (Nikolov, 2000, p. 21). Nonetheless, in international and interpersonal communication worldwide, there is a growing demand for using a common language. English as a foreign language serves as a means of communication for those who intend to share ideas, but speak different first languages. This demand generates supply, which is materialised in several areas of life in modern societies, and which can be utilized in order to raise language competence outside the classroom. The tendency to employ out-of-school opportunities for language learning could be facilitated by teachers, i.e. learners’ attention could be drawn to various out-of-school practice opportunities which support language learning in general and vocabulary learning in particular. By increasing the amount of input both in and out of the classroom, foreign language learning can get closer to second language learning. Therefore, in the foreign language context both the learners’ strategic and self-regulated behaviour are particularly important since these factors mutually contribute to the success of language learning.

### 1.2.3 Knowing a word

What it means to ‘know a word’ is discussed in this section in order to highlight the facets of vocabulary knowledge learners can encounter when learning a language in a foreign language context. Language learners can have some ideas about what knowing a word means depending on their mastery of the language and on the level of consciousness with which they learn the language. Learners can observe different aspects of vocabulary as word knowledge and employ different strategies related to these aspects in order to acquire and improve their foreign language lexicon. Knowing a word requires a learner’s experience about different aspects of a word, such as spoken and written forms, grammatical context and the way it ‘behaves’ in collocations, frequency, stylistic register constraints, conceptual meaning, and word association (Nation, 1990, p. 31). In other words, a lexical entry in a learners’ lexicon can contain information about semantic, pragmatic, stylistic, collocational, syntactic, categorial, morphological, articulatory, and orthographic features (Hulstijn, 2000, p. 259).

Obtaining applicable knowledge about these features, however, is affected by many factors (Laufer, 1997; Nation, 1990). One of these factors is the codability of the morphological form of words (Hulstijn, 2000). Codability and hence memorability is dependent on the learner’s prior knowledge. For an adult beginner, it may take several hours to learn the first 15 content words of a second language, but studying the language as a daily routine for three months one “may easily add another hundred new words to his or her medium-sized vocabulary in one hour” (Hulstijn, 2000, p. 261) because the language learner no longer encodes the letters and sounds as a single unit, but becomes familiar with phonemes, morphemes, syllables, and prosodic patterns and thus implicitly recognizes which sequences and combination of elements should be used (Ellis & Beaton, 1993). All this suggests that for YLs with less experience, learning vocabulary in a new language takes longer time than for advanced learners. This is especially true for learning a foreign language in a school context. Moreover, young learners have to learn not only the new vocabulary itself, but together and simultaneously with learning words they have to learn strategies which they successfully apply, and they have to learn how to direct the whole language learning process, as well. Therefore, one of the most challenging questions of second language vocabulary research is to find out what aspects of knowledge learners consider important at the beginning of learning new words and to identify the ways of their strategic language learning and self-regulation to learn vocabulary. It can be assumed that the use of vocabulary learning strategies is sensitive to learners’ understanding of knowing a word, i.e., what

learners perceive about knowing a word can determine their choice of strategies. Word knowledge, however, can mean different things for learners in the course of language learning. These issues are discussed under the heading of ‘word vs. vocabulary learning’ below.

#### **1.2.4 Learning a word**

Learnability is a key issue in learning a word and it can be influenced by a learner’s impression of the different aspects of a word. As learners often experience, there are easier and more difficult words in an L2<sup>2</sup>. “A foreign language word is thought likely to be easier to learn if: it is like its first language translation, it is relatively short, it is concrete, and imaginable, and it is different in sound and appearance from other new words” (Milton, 2009, p. 37). This suggests that the most important aspects of learning a word, at least when a new word appears, are meaning and form, both written and oral. Vocabulary learning is normally meaning centred, so word meaning can be considered as the most important part of word knowledge, followed by articulatory and orthographic features, i.e. oral and written forms. To learn a word, students can employ a number of strategies, which can be connected to the different aspects of learning a word. Normally, these aspects support one another, and thus, the learnability of words. In a communicative context, for example, emphasis is usually put on meaning, thus, learners have to employ strategies that help memorization, and simultaneously, the oral and written forms can be acquired, and the pronunciation and orthographical form must be learnt. If a language learner has already learnt how to write in his/her mother tongue, and finds it difficult to learn, for example, the orthographical feature of a new word, he/she must employ strategies that facilitate this particular aspect and can use the strategy of written repetition, i.e. write down or copy the word several times.

It also seems that the more one learns, the more one can forget, therefore, revision in vocabulary learning plays an important role in consolidating word knowledge. Immediate additional encounters with new words consolidate the form – meaning connections of the target words and result in better word retention (Hulstijn, 2003). In educational settings it is the teachers’ responsibility to provide students with a sufficient number of encounters with

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<sup>2</sup> The abbreviation ‘L2’ is used in this paper to refer to second and foreign languages, as differentiated from the first language or mother tongue (L1). L2 is broadly used to assign both second and foreign languages, in the case of English both ESL (English as a Second Language) and EFL (English as a Foreign Language), since the learning of a second and a foreign language involves the same fundamental processes in different settings. L1 or mother tongue, on the other hand, is the language that was learnt first by the individual, and the one they identify themselves with (Kontra, 2003, p. 16).

new words and to give opportunities for repetition. In case learning and instruction operate at an optimum level, vocabulary acquisition can be an incremental process.

At certain stages of the language learning process it is necessary to sum up the knowledge acquired and set up further goals for learning. Although, a principled answer to the question of the ultimate goal of how many words adult L2 learners know seems never to be attained, there is sufficient empirical evidence that the minimal learning target is generally considered to be the receptive knowledge of 5,000 L2 words that enables an L2 learner to comprehend the main points of non-subject-specific texts (Milton, 2009; Nation, 1990). This is the optimal working level of target vocabulary, but to achieve this language learners usually go through stages that require different levels of knowledge in different educational settings and with different purposes. The actual level of vocabulary gives information about the stage a language learner is at and predictions can be made about the growth in vocabulary breadth.

In the Hungarian context, the *Hungarian National Core Curriculum (Nemzeti alaptanterv, 2007)* establishes guidelines about the vocabulary size that should be achieved in certain classes of the primary school. The language proficiency levels are in line with the levels defined by the *Common European Framework of Reference (CEFR, 2001)*. The recommendations distinguish between receptive and productive vocabulary. The number of words a primary school learner should learn altogether in grade 3 is 350, and this number should be increased almost five times to 1,600 by the end of grade 8. Orosz (2007) examined the vocabulary growth of Hungarian primary school pupils (n=354) in grade 8 and compared it with international data. Data was borrowed from various studies, including Japanese, Greek, Indian, Indonesian, British, and Saudi language learners' vocabulary measurements. She concluded that Hungarian learners learn 386 words on average in a school year, which puts them in the middle range in this international comparison. Though the sample was not representative, this finding suggests that YLs in Hungary could be successful in learning L2 vocabulary, and they can employ strategies to facilitate their vocabulary knowledge.

### **1.2.5 Word vs. vocabulary learning**

Although learning a word can be strongly associated with learning vocabulary, it is necessary to discuss the terminological issues and determine how these concepts are used in this paper. While a word can be one part of vocabulary, vocabulary is the set of words within a language. It follows that vocabulary knowledge consists of the knowledge of words. However, it is not at all irrelevant what aspects of words are counted when the size of vocabulary is in question.



When studying the literature on vocabulary knowledge it is not unusual that “we tend to use the word ‘word’, presumably for ease and convenience, when we are really referring to some very specialist definitions of the term, such as *types*, *token*, *lemmas*, *word families*” (Milton, 2009, p. 7). “*Tokens* refers to the number of words in a text or corpus, while *types* refers to the number of different words” (Milton, 2009, pp. 7–8). Nation (2001, p. 7) defines *lemmas* as a group of words that consist of a headword and its most frequent inflections, and the items included under a lemma usually belong to the same part of speech.

When studying vocabulary learning strategies the way vocabulary is learnt is investigated, and, thus, there is no need to strictly differentiate word and vocabulary knowledge. Moreover, when learning a language the ultimate goal can be to achieve fluency in language use; therefore, besides single words, learners could learn formulaic sequences or lexical chunks that highly facilitate fluency. Formulaic sequences, i.e. the meaningful grouping of items, are stored in the memory as single units, thus their retrieval is cognitively undemanding (Schmitt, 2004) allowing the speaker to attend other aspects of communication and to plan larger pieces of discourse. They naturally facilitate fluent language production under real-time conditions. Formulaic sequences result from memorizing the sequence of frequent collocations, such as fixed idioms, conventional speech routines, and combinations of words that appear together. However, Wray argues for the *morpheme equivalent unit* (MEU) which includes both single and multiword units. MEU is defined as “a word or word string, whether incomplete or including gaps for inserted variable items, that is processed like a morpheme, that is, without recourse to any form-meaning matching of any sub-parts it may have” (2008, p. 12). The MEU concept observes the way in which formulaic sequences behave in a similar manner to single morphemes. In addition to the broad nature of the MEU definition, the observation that in foreign language classroom contexts it is also very common to refer to both formulaic sequences and single words as ‘words’ (which is how they are appear as recorded single items in learners’ vocabulary books) enables us to analyse language data from this starting point, i.e. that words and collocational phrases can be treated equally, as single lexical items. Therefore, in this paper, when enquires are made about children’s vocabulary learning, no distinction is made between single-word knowledge or vocabulary knowledge, i.e. ‘word’ is used to designate both single words and formulaic sequences, and any interpretation by the participants concerning what a word might be is accepted.

The terminology and conceptual background outlined in this chapter chiefly underpin the research either by providing a framework in which the investigation has been carried out, such as defining YLs and the language learning context, or by highlighting issues, such as

knowing a word or the learnability of words, which can directly influence strategy choice and self-regulated behaviour in learning vocabulary.

As I have stated in this chapter, YLs are in the focus of this dissertation and what they do when learning vocabulary and what they think about the process are targeted. Since young learners' strategic vocabulary learning in a Hungarian context has not been investigated so far, in this introductory part it was vital to present a comprehensive picture about the language learning context and to disambiguate the basic terms which provide insight into the process. In the literature review, in the next chapter, the most significant issues those giving relevance to the research are discussed.

## **CHAPTER 2**

### **REVIEW OF THE LITERATURE**

#### **Introduction**

In this section, the research is first theoretically supported by discussing it in relation to attention and awareness in second language learning since these issues are vital to conceptualizing learning strategies, and, thus, strategic learning. Then, I discuss the conceptual shift from the study of learning strategies to strategic language learning. I consider previous research on young learners' language learning and vocabulary learning strategies in Hungarian and international research, and contrast some of the early definitions and classifications that have made a way into language learning strategy research until now. The relevance of strategy trainings is also discussed. Finally, the constituents of self-regulated vocabulary learning, such as self-regulating capacity, metacognition, motivation and self-motivation are addressed in order to establish the specific foundation for the research.

#### **2.1 Attention and awareness in L2 learning**

Although strategic vocabulary learning is in the centre of this dissertation, I start reviewing the literature with discussing attention and awareness because these issues seem to penetrate the whole second language acquisition process, and, thus, make a way into strategic vocabulary learning. These issues are discussed, because strategies can operate on different levels of consciousness; moreover, the conceptualisation of the terms 'strategic learning' and 'self-regulated language learning' highly depends on the approach to these issues.

The traditional distinction between learning and acquisition (Krashen, 1982) relies on the controversial issue of consciousness; therefore, it bears significance in a variety of contexts in second language acquisition. According to this view, learning normally refers to conscious procedures, while acquisition is used to emphasize the subconscious nature of the learning process. However, the issue of consciousness is not at all so simplistic, and, thus, it is necessary to discuss it in the context of other, closely related but not identical terms, such as awareness, attention, and noticing.

Although consciousness and awareness are interrelated – as what we are conscious of is usually what we attend to – it is essential to separate the two notions because they refer to

distinct processes that do not always coincide (Koch, 2004). Consciousness is a property or characteristic of the mind, associated with qualities such as self-awareness, reflectiveness, emotion, and subjectivity (Robinson, 1995). Its purpose is to focus our vast unconscious resources on a particular issue. Attention is a cognitive mechanism that controls access to consciousness (Schmidt, 2001) with the purpose of helping to avoid information overload by focusing on a small fraction of the input in real time (Koch & Tsuchiya, 2007). Attention involves a variety of distinct processes, such as working memory, competitive selection, top-down selective control, and automatic filtering for salient stimuli (Robinson, 2003; Schmidt, 1995).

Proceeding from the idea that learning requires attention, on the one hand, it can be concluded that subliminal learning is impossible, and, on the other hand, it can also be stated that not all learning is deliberate or intentional. Vocabulary, for example, can be learnt through extensive reading, without any intention to learn new words (Schmidt, 1995). Additionally, awareness is best conceptualized as a scale: a low level of awareness is called 'noticing', and a higher level of awareness is called 'understanding' (Schmidt, 1995. p. 29). Schmidt's *noticing hypothesis* (1995, 2001) addressed two fundamental issues of language learning: (1) the role of explicit, conscious learning in the SLA process, and (2) the explanation of why only a selected portion of input becomes intake during the learning process. This hypothesis claims that only those parts of the input become available for intake and effective processing that the learner notices, and the degree of awareness is also important. This idea is in accordance with the explicit/declarative first and implicit/procedural second trend (Alakura, 2012; Ellis, 2009). The noticing hypothesis states that effective implicit learning cannot happen without explicitly creating the initial mental representation of a new stimulus. It means that the initial conscious registration can result in implicit learning, and then, the automatization process does not require subsequent noticing. Nevertheless, the question of what aspects of the target material should be noticed for learning to take place must be answered to understand the learning process. According to the strong version of noticing hypothesis, only those aspects of a target structure will be learnt that the learner is noticing, accordingly attention must be specifically focused, not just global. Nonetheless, cases where language features are not specifically attended cannot be excluded. Even so, it is universally accepted that specifically attending to aspects of the language input facilitates the effectiveness of learning, i.e. there is positive correlation between learning and consciousness. All in all, attended learning is far superior to subliminal involvement.

Concerning awareness, three major views can be distinguished in the foreign language teaching literature (Schmidt, 1995; Dörnyei, 2009). The interface positions of language learning ascribe different role and importance to conscious vs. unconscious learning mechanisms. The first and most traditional position emphasises that language learning results from understanding and participating in interaction, thus, instruction should be meaning-oriented rather than form-oriented (Krashen, 1982, 1993; Prabhu, 1987). However, the psychological literature implies that foreign language teaching exclusively relying on the meaning-focused approach is misguided (Dörnyei, 2009, p. 278). Another view called ‘strong interface’ perspective puts an emphasis on the importance of conscious knowledge. In this view (DeKeyser, 1997; McLaughlin, 1990), knowledge should come first, followed by practice, i.e. this perspective refers to the movement from declarative knowledge to procedural knowledge via practice. A third, intermediate view has emerged in the foreign language teaching literature, which emphasises that foreign language instruction is more effective if exposure is combined with input, and communicative teaching practise with a form-oriented focus and consciousness-raising technique (Ellis, 1994, cited in Schmidt, 1995, p. 4). Since not all language features can be acquired when a learner’s attention is focused exclusively on meaning, a focus on form in a communicative context appears to be necessary. Consequently, input and interaction, and attention and awareness are all crucial elements for language learning. Direct instruction, consciousness-raising, and focus on form are needed to help learners systematize the input they encounter, facilitate understanding, and support natural acquisition processes (Ellis, 1993; DeKeyser, 1994; Hulstijn & de Graaff, 1994). Unfortunately, contrasting the interface positions as Dörnyei argues (2009, p. 167) had only limited use in furthering the field since the debate remained at general (theoretical and terminological) level, therefore there is a need to outline potentially relevant implicit and explicit learning mechanisms.

The idea of the contrast between explicit and implicit dichotomy is that explicit means consciousness, while implicit refers to unconscious, automatic, and indirect functions. Both notions are used for a variety of purposes with different meanings and applied to different concepts, such as learning, knowledge, and memory. However, it is rarely explained in the literature how these concepts are interconnected (Dörnyei, 2009, p. 170). Explicit learning is usually treated as a conceptually unambiguous process characterized by the learner’s conscious and deliberate attempt to solve a problem or master some material. When something is explicitly learnt it is vital to direct consciousness at the target and keeping it focused on it, which requires effort and strategic expertise on the part of the learner. Explicit

learning is the type emphasised by most school instructions as well. Implicit learning (Ellis, 1994), on the other hand, is the ability to learn without awareness and acquire new knowledge without intending to do so. Implicit knowledge is difficult to express but easily accessible, which is the hallmark of automatic processing. Implicit knowledge (Ellis, 1994) is memory-based rather than rule-based, it is abstract and structured, has the potential to be consciously analyzed, and occurs closely adhering to natural language behaviour. Unfortunately, the ability to learn implicitly seems to disappear when it comes to learning an L2, mainly because second language learning is hugely affected by age and time (DeKeyser & Juffs, 2005). The effectiveness of implicit learning capacity is specifically related to, and limited by, the learner's age, so that late L2 learners can be observed to rely less on their global linguistic knowledge and comprehension skills (Dörnyei, 2009, p. 169).

### **2.1.1 Conscious vs. unconscious use of language learning strategies**

As for language learning strategies, the issue of awareness is also central. Strategies can be used consciously or unconsciously, and the level of consciousness can influence the use of strategies, which contribute to success or failure in language learning (Cohen, 2007). The extent of awareness in learning an L2 depends on a number of factors. Empirical research on strategy use supports the view that YLs use a range of strategies consciously (Julkunen, 1999; Mihaljević Djigunović, 2001; Nikolov, 1999a; Nikolov, 2003b; Szpotowicz, 2000; Szulc-Kurpaska, 2000). However, there is some disagreement on the issue of the level of consciousness which is necessary for awareness on the part of the learner to be considered as a strategy (Cohen & Macaro, 2007, p. 33). Other factors with an effect on awareness in strategy use are age and learning experience, which may also contribute to the use of more frequent and sophisticated strategy use.

There is some disagreement among experts in the field of language learning strategy research regarding the level of consciousness necessary for strategy use (Cohen, 2007). Some feel that if a process is automatic it is no longer a strategy, because automatic means habitual and unconscious. Consequently, if a learner cannot control a strategy because it is used unconsciously, it is no longer a strategy but becomes a process (Cohen, 1998). In this view, strategies operate only on a conscious level. On the other hand, others are convinced that different levels of consciousness can be attached to the various phases of strategy use. Bialystok (1978) in her model of second language acquisition circumscribes the differences between conscious, optimal, and subconscious, obligatory learning strategies and concludes

that learners do not necessarily use strategies consciously. However, later she concludes that consciousness as a defining condition of the distinction between strategic and non-strategic language learning cannot be applied (Bialystok, 1990).

Taking metacognitive awareness into consideration, the view that strategy use can vary from less conscious to more automatic is supported by Chamot (1999) who studied children in language immersion classrooms and noticed that although some children at the age of six could describe their thinking processes, this ability developed gradually over the six years of their studying a foreign language. This finding suggests that consciousness in strategy use develops with age and proficiency, which factors highly influence the success in second language learning. On a higher level of language proficiency the use of some strategies, supposedly the simpler ones, can become automatic and work unconsciously. Other strategies, which require a higher level of cognitive effort, can be used consciously, since attention must be paid and effort should be made to use them. Therefore, conscious vs. unconscious strategy use seems to depend mainly on the interaction between two factors: one is learner variable, such as age and proficiency level, the other one is the relative complexity of strategies. More precisely, younger learners and beginners at the beginning stage of language learning can commonly use 'shallow' strategies (the term used by Schmitt, 1997, p. 201) consciously, and these strategies can be automatized during the language learning process. However, older and more proficient language learners may use more complex strategies consciously. All this implies that the interaction between these factors highly determine consciousness in strategic language learning. Consequently, the level of consciousness and the automatization process are key issues that influence strategy use in language learning. In this research, learners' age is addressed in order to find out how strategic YLs are across age, what kinds of strategies they use, how assessable young learners' strategy use is, and to provide evidence for age-related characteristics in strategic vocabulary learning.

## **2.2 Language learning strategies**

### **2.2.1 Defining language learning strategies**

Strategy research can be discussed in the broader framework of second language acquisition, and a variety of issues are related to conscious learning, although the subconscious use of learning strategy also plays an important role in the investigation of strategies. Whereas the terms 'language learning strategy' and 'language learner strategy' are both generally accepted

in L2 strategy research (Cohen & Macaro, 2007), there is no generally accepted definition of what is meant by them. Both ‘language learning strategies’ (LLS) and ‘language use strategies’ are defined as actions selected consciously by learners to improve L2 learning, or L2 use (Cohen, 1998; Ellis, 1995). These two terms, taken together, constitute ‘language learner strategies’.

Early definitions focused on the outcome of LLS use. Tarone’s (1981) definition emphasises the attempt to develop linguistic and sociolinguistic competence in the target language. More recent definitions put language learning processes and characteristics in their focal point. O’Malley and Chamot define strategies as “special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information” (1990, p. 1). Ridley (1997) describes strategies in a broader sense as denoting procedures which operate consciously or unconsciously in order to reach a certain goal. Moreover, some definitions are quite specific, and others are quite broad. Oxford, for example, defines language learning strategies as “specific methods or techniques used by individual learners to facilitate comprehension, retention, retrieval and application of information in the second or foreign language” (Oxford, 1990, cited in Oxford, 2003b, p. 339). Ellis (1995) defines a strategy as a behavioural or mental activity related to some specific stages in language acquisition and to the process of language use. According to Cohen (1998), strategies are processes which learners consciously select and can result in action to enhance either the learning or use of a L2 through a number of processes, such as storage, recall and application of information about the target language. Nation (2001) though does not try to define strategies, argues that attention must be paid to the features of strategy choice, complexity, knowledge of strategies, and their effects on vocabulary learning and vocabulary use. Generally speaking, learning strategies are supposed to both sustain and support the process of learning and in the context of language learning, they are applied by the language learner to make language learning and language use less problematic. Cohen and Macaro (2007, p. 27) summarize the broad claims made by authors in the field of strategy research as:

1. The strategies that learners use are accessible and can be documented.
2. A strategy is a construct that can be defined, and what it is and what it does can be described in practical terms.
3. Strategies are important because they are associated with successful learning.
4. Some learner types are more likely to use strategies or use them more successfully than other learner types.
5. Strategies can be taught and learners, as a result, can develop more effective strategic behaviour.



Therefore, the existence and significance of learning strategies are unquestionable in spite of the “lack of an unambiguous theoretical definition of the learning strategy construct” (Dörnyei, 2005, p. 163). Unfortunately, though, besides the inadequate conceptualisation of the term, a number of questions have been insufficiently answered in connection with LLSs, such as the nature of strategies, their observability, and the level of awareness necessary for using them. Therefore, though the theoretical background of the term LLS has undergone a great deal of changes, it has still remained controversial. Bridging theoretical ambiguities, Dörnyei puts learning strategies in a broader framework and argues that they “refer to idiosyncratic self-regulated behaviour, and a particular learning behaviour can be strategic for one learner and non-strategic for another” (Dörnyei, 2009, p. 183). In this view, although strategies can be important, there are also other factors that should be thought about when language learning is studied.

Although I reviewed some of the above issues needed to carry out this research, providing adequate answers to these vague issues is beyond the scope of this dissertation. I intend to discuss the whole notion of language learning strategies (LLS) in the framework of self-regulation and examine it as one constituent of self-regulated language learning. Both this global notion and the specific constituents of self-regulation will be discussed in section 2.4.

### **2.2.2 Classification of language learning and vocabulary learning strategies**

There is a wide range of learning strategies, which can be employed for the fulfilment of complex or simple language tasks. Vocabulary learning, for instance, can be seen as an example of a simple language task. However, it would be misleading to conclude that VLSs are applied only in the isolated task of learning vocabulary. In fact, they are utilized in all kinds of language tasks, such as guessing meaning from context, identifying the grammatical category of words, recognising cognates, etc. (Hosenfeld, 1984). In addition, empirical research has proven that L2 learners tend to employ LLS in vocabulary learning more than in any other language learning activity, which suggests that general strategies can safely be applied in vocabulary learning (O'Malley, Chamot, Stewner-Manzanares, Russo, & Küpper, 1985). Accordingly, research into vocabulary learning strategies has had two dimensions. The first approach is based on general language learning strategies, since many of these strategies used by language learners are vocabulary learning strategies, such as the memory strategies in Oxford's taxonomy (1990). The other focus of research explores the effectiveness of individual strategy application in vocabulary learning. This investigation resulted in the

formulation of an independent subgroup of learning strategies, called vocabulary learning strategies (VLSs) (Gu and Johnson, 1996; Schmitt, 1997).

As for the use of learning strategies for vocabulary learning, Oxford's (1990) taxonomy has played a formative role in empirical research. Her classification establishes two broad classes of strategies, direct and indirect, and both are further divided into three more categories. Direct strategies include memory, cognitive and compensation strategies, while indirect strategies consist of metacognitive, social and affective ones. Direct strategies contribute to language learning by directly facilitating the storage and recall from memory, while indirect strategies do not operate on the language itself but support language learning indirectly by focusing, planning, evaluating, co-operating, etc. In making this distinction, however, Oxford opened herself up to the criticism that she did not establish a clear link between the strategies for language use and the strategies for language learning (Dörnyei, 2005). The Strategy Inventory for Language Learning (SILL) (Oxford, 1986–1990) is based on Oxford's classification. It is a fifty-item survey whose items represent a particular strategy in the six groups: memory, cognitive, compensation, metacognitive, affective, and social. Although this questionnaire was designed to elicit learning strategies in general, its items refer widely to vocabulary learning strategies, therefore, it is commonly applied in measuring VLSs. Oxford's SILL was adapted to the purpose of measuring young learners' vocabulary learning by Gunning (1997, cited in Oxford, 2003b) under the name of Children's SILL. Its construct is discussed when young learners' vocabulary learning strategies are focused on.

Strategies can be connected to all aspects of learning, such as cognitive, metacognitive, social and affective aspects, which can formulate a typology. O'Malley and Chamot (1990) developed a categorization framework which could adequately describe strategies. In this categorization LLSs are divided into three major types: metacognitive, cognitive and social/affective strategies. Metacognitive strategies are responsible for overviewing the processes of language use and language learning, and for planning and regulating these processes efficiently. Cognitive strategies involve the manipulation of information in order to acquire or retain the information. Social and affective strategies manage interpersonal relationships in order to control language learners' emotional constraints. This framework allows for more detailed taxonomies, since each of these major categories describe a variety of strategies. Dörnyei (2005) recommends another classification based on the two well-known taxonomies of language learning strategies presented by Oxford (1990), and O'Malley and Chamot (1990), which are highly compatible. First, compensation strategies of Oxford's taxonomy, which are related to language use rather than language learning, are excluded.

Second, Oxford's memory and cognitive strategies are combined. And third, O'Malley and Chamot's (1990) social/affective strategies are separated. The resulting taxonomy embraces the following main components:

1. *Cognitive strategies*, involving the manipulation or transformation of the learning materials/input (e.g., repetition, summarizing, using images).
2. *Metacognitive strategies*, involving higher-order strategies aimed at analyzing, monitoring, evaluating, planning, and organizing one's own learning process.
3. *Social strategies*, involving interpersonal behaviours aimed at increasing the amount of L2 communication and practice the learner undertakes (e.g., initiating interaction with native speakers, cooperating with peers).
4. *Affective strategies*, involving taking control of the emotional (affective) conditions and experiences that shape one's subjective involvement in learning.

(Dörnyei, 2005, p. 169)

Besides Oxford's classification, there are other prevailing taxonomies that focus on vocabulary learning strategies. Schmitt (1997) proposes a taxonomy for vocabulary learning organised mainly around Oxford's (1990) classification of social, memory, cognitive and metacognitive categories. Schmitt's taxonomy follows the Discovery/Consolidation distinction (Nation, 1990), in which Discovery strategies are responsible for gaining information about a new word's meaning, and Consolidation Strategies for consolidating the meaning of a new word once it has been encountered. Discovery Strategies help finding initial information about a new word and besides the fundamental task of determining the meaning they help discovering information about the word class, spelling, collocation and register, which also belong to word knowledge (Richards, 1976). At the first encounter learners either intend to figure out the meaning using contextual clues or reference material (use Determination Strategies), or ask someone for help (use Social Strategies). Consolidation strategies come from the social, memory, cognitive and metacognitive strategy groups. Gu and Johnson (1996) have developed an extensive taxonomy, which divides VLSs into a number of subgroups: beliefs about vocabulary learning, metacognitive regulation, guessing strategies, dictionary-use strategies, note-taking strategies, memory strategies for rehearsal, memory strategies for encoding, and activation strategies. Nation (2001) has proposed a taxonomy that attempts to separate the aspects of vocabulary knowledge from the sources of vocabulary knowledge and from the learning processes. In the planning phase, he argues, the

learner chooses what to focus on and when to focus on it. Strategy types belonging to this group are choosing words, choosing the aspects of word knowledge, choosing strategies and planning repetition. *Sources* refer to the general class of strategies directed to finding information about words. This group includes analysing morphological components of words, using context, consulting a reference source in L1 or L2, and using parallels with other languages. Finally, strategies in learning processes are directed to establishing knowledge with the help of noticing, reviewing, and generating.

Although these classifications can provide a framework for further analyses and classifications that can bring us closer to the understanding of VLSs in general and language learning strategies in particular, they have arisen based on different aspects of vocabulary knowledge, such as strategies for vocabulary learning or vocabulary use, implying that they can be maintained only in a particular language learning context. Moreover, according to Dörnyei (2005), these taxonomies may result in a permanent description and classification of strategy types, which cannot be sustained in the long run. Recently, there has been a growing recognition among researchers that learning strategies and, thus, vocabulary learning strategies should be studied either to be restricted to use in special contexts (for example, task-completion strategies), or should be discussed in the broader framework. Self-regulated language learning can provide a rich background, in which, besides other essential factors, learning strategies can function as a key constituent of the learning process. Self-regulation offers an alternative structure for strategy investigation, which although can include learning strategies, focuses on other aspects of the learning process (Dörnyei, 2005; Tseng et al., 2006), making more exhaustive enquiries about the language learning process available. In this broadening perspective, strategic language learning overrules ‘ordinary’ learning activity which does not invoke strategy use (Dörnyei, 2005, p. 164). But if a learner, for instance, applies some mechanical techniques to ease memorization, strategic learning comes into view. Hence, the distinguishing feature of a learning strategy can be defined by three critical characteristics: it is goal-oriented, intentionally invoked, and effortful (Weinstein, Husman, & Dierking, 2000). However, if these are the defining criteria of what strategic means in language learning, the notion of ‘strategic’ is equated with ‘motivated’, since these features are also the three key features of motivation (Dörnyei, 2005, p. 165). Therefore, Tseng and Schmitt (2008) created a model of motivated vocabulary learning which describes strategic language learning as an activity requiring creative effort from the language learner.

### **2.2.3 Vocabulary learning strategies of young learners**

Literature on young learners' vocabulary learning strategies is reviewed in this section in order to specify the most important findings of the area that can contribute to the present research. As I have already mentioned, research on young learners' VLSs is quite rare compared to the tertiary level in education, where most of such research has been implemented. The most important findings are overviewed here in order to highlight the significance of what YLs do when learning vocabulary and to find relationships with the vocabulary learning strategy aspect of the research. The fact that vocabulary learning strategies of YLs have not yet been investigated in Hungary provides firm motivation for this research.

Previous findings indicate that cognitively demanding strategies, which require a high level mental activity, are rarely used by junior high school students because they may have not achieved sufficient cognitive maturity that would allow using them. It follows that YLs use cognitively shallow strategies, which involve for example repetition strategies, such as oral repetition, and mechanical techniques, such as copying the newly learnt words (Schmitt, 1997). However, the reason for using certain strategies may not depend only on the cognitive maturity but certain other factors, such as teaching practices, learner styles, and individual learning and self-regulation may also influence it.

Schmitt (1997) found that cognitively demanding strategies lead to higher retention in memory than cognitively shallow activities, such as verbal repetition. However, YLs and beginners do succeed in language learning despite the fact that they have the most difficult task to learn a new language different from their mother tongue. When I discussed the issue of knowing a word in the first chapter I mentioned that the first content words of a new L2 are the most difficult to memorise for those who start to learn a foreign language for the first time (Hulstijn, 2000), but in time as learners know more and more about how language works, the acquisition process becomes faster. Nonetheless, beginners – either children or adults – do learn the first words of a language one way or another with the help of using certain strategies. As for applying cognitively shallower strategies, it may hold true that rote learning has been encouraged in the language teaching practice and also as an L1 learning strategy in children (Kovács, 2009), and thus repetition is inherently a commonly used language learning strategy. Moreover, verbal repetition or rote learning proves to be successful among language learners irrespective of age and mastery of language. The psychological literature suggests that the repetition of words in the form of overt or silent articulation briefly held in working

memory promotes long-term retention (Baddeley, 1997). However, but it is not at all secondary what kind of repetition brings success in language learning. Spaced repetition, which involves spreading the repetitions across a long period of time, results in more secure learning than massed repetition, which involves spending a continuous period of time with repeating a word (Nation, 2001, p. 76). Pavičič (2008) found that repetition, verbal or written, is not only an effectively applied strategy but seems to be a core strategy as well.

Vocabulary learning of elementary school learners was examined by Lin (2001, p. 145 cited in Oxford, 2003b, p. 348) in a case study. With the involvement of 7 Taiwanese learners, all of whom were EFL learners, the study provided practical results. The strength of the study is the use of multiple data collection methods, including classroom observation, written records, interviews, and think-aloud protocols. Data was gathered in order to create a frequency profile of strategy use for each student. Seventy-three vocabulary learning strategies were identified and categorized into 18 major strategies. Table 1 shows the strategy groups these items belong to.

*Table 1: Taiwanese elementary school learners' strategy profile*

<b>Cognitive strategies</b>	<b>Metacognitive strategies</b>	<b>Social-affective strategies</b>
writing repeatedly	preparing in advance	asking for help
speaking repeatedly	selectively attending to specific details	cooperating with others
segmenting words	monitoring	testing each-other
applying phonics	self-managing	
making associations		
using resources		
making inferences		
predicting		
elaborating		
recalling		
note-taking, reading aloud,		
reading target vocabulary		
once		

Contrary to this rich inventory of strategies, Lin found that learners' vocabulary learning was limited to rote memorization (Lin, 2001, p. 145, cited in Oxford, 2003b, p. 348), and the characteristics of vocabulary tests and the EFL environment prevented them from employing newly taught words outside the classroom. As for dictionary use, learners avoided studying word usage and sentential examples. These findings, according to Lin (2001, p. 145 cited in Oxford, 2003b, p. 348), contradict other studies (e.g. Green & Oxford, 1995; Gu & Johnson, 1996; Kojic-Sabo & Lightbown, 1999) which found that learners' overall language proficiency was related to skilful dictionary use, self-initiation in learning, willingness to spend time on learning vocabulary, and practicing of newly learnt words outside of the

classroom (Lin, 2001, p. 141, cited in Oxford, 2003b, p. 349). Lin's study, however, showed that her participants failed to succeed in these aspects of vocabulary learning. On the whole, these learners had a lack of opportunities to practice new words outside the classroom, used dictionaries only for checking definitions and used rote memorization for learning vocabulary.

Oxford's (2003b) research provided learning strategy profiles of sixth-grade students learning EFL in public elementary schools in Taiwan. Results indicated strong relationships between strategy use and proficiency and showed significant gender and motivational differences. In the first phase of the study a strategy questionnaire was administered to 379 sixth graders. In the second phase, interviews were conducted on a smaller sample of EFL learners. Gunning's (1997, cited in Oxford, 2003b, p. 350) Children's SILL (Strategy Inventory for Language Learning) – based on Oxford's (1990) SILL – was used by Oxford. This taxonomy identifies 30 strategy items all belonging to the main categories of memory, cognitive, compensation, metacognitive, affective, and social strategies. The positive outcomes of the survey were that YLs tended to rely on compensation strategies to cope with difficulties and employed some affective strategies to reduce stress and anxiety. However, the young learners involved in the research were also found to be uncooperative due to the rarely observed classroom practice of engaging learners in practising English vocabulary with their classmates.

Pavičič (2008) conducted three studies of VLSs used by elementary school learners of English as a foreign language. The goal of the first study was to develop an instrument for measuring VLS use and to attempt to classify VLSs. The second explored the relationship between VLS and vocabulary teaching strategies. The third study investigated the differences in VLS use between learners of two different (English and German) languages. Referring to some of the aspects of vocabulary learning, three main components were discovered and a new classification of VLS was proposed, which is as follows: (1) strategies of formal vocabulary learning and practicing, (2) self-initiated independent vocabulary learning, and (3) spontaneous (incidental) vocabulary learning (acquisition). In the main study a valid and reliable instrument was developed that measures the frequency of VLS use and complies with the characteristics of elementary school learners. It consists of 27 items and is named Vocabulary Learning Strategy Questionnaire for Elementary Schools (VOLSQUES). Factor analyses conducted on the variables in connection with VLS indicated that “there is a number of factors in addition to VLS which influence the process of learning vocabulary in the FL” (Pavičič, 2008, p. 100). Looking at this finding from a broader perspective, it is crucial to the present research because it indicates what has also been proposed in research literature

(Dörnyei, 2005; Tseng et al., 2006; Tseng and Schmitt, 2008), i.e. that besides VLSs there are other factors supporting vocabulary learning which are at least as essential to the process as VLSs themselves. These factors will be discussed in the subsequent sections in the framework of self-regulation.

#### **2.2.4 Development of vocabulary in young learners**

Vocabulary learning requires considerable time and deliberate effort on the part of the language learner, which is something that involves the active participation of both teachers and learners. Learners vary in terms of their age and cognitive development. Traditionally, beginners were mature adults or adolescent learners in school, but increasingly, language learning is being introduced to young learners. One of the basic differences between young and adult learners is the degree of literacy they process, i.e. adult learners are more skilled and experienced, and are able to use more refined strategies for learning vocabulary, while YLs are likely to rely on oral language input more than adults. Since beginners tend to be much younger, they have to store new words in the foreign language phonologically because they lack the experience and skills necessary to store them orthographically, and, thus, they tend to favour phonological word learning over orthographic (Milton, 2009, p. 247). Hence, the learner's development from a phonologically-loaded to orthographically-loaded lexicon is related to variables of age, language level, and cognitive development. The route of the movement from a phonologically-loaded to orthographically-loaded lexicon entails the 'top-down' process of language learning, which has an effect on storing and recalling vocabulary. This implies that beginners' cognitive abilities are more receptive, whereas more advanced learners make use of greater productive abilities.

Besides the phonological and orthographic components, knowing an L2 lexical item involves several dimensions of lexical cognition related to a range of morphological, syntactic, semantic, stylistic, and pragmatic factors. However, lexical knowledge can be conceived of as a continuum, with the poles of the axis labelled as receptive and productive competences. Melka Teichroew (1982) argues that the distinction between receptive and productive vocabulary is arbitrary and can be treated simply as a scale of knowledge. The initial degree is basic knowledge, which can be the recognition of a lexical item in a context, but it does not enable a learner to produce it, while a higher degree of knowledge can be close to productive knowledge. However, individual differences vary to a great extent. Learners learning in very similar conditions can come up with very different vocabulary learning



outcomes, some of them making huge progress, whilst others do not. Receptive and productive vocabulary develops in the course of language learning and even partial knowledge represents a degree of knowing a lexical item. Receptive vocabulary use involves perceiving the form of a word while listening or reading, and retrieving meaning, while “productive vocabulary use involves wanting to express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written word form” (Milton, 2009, p. 24–25).

Learning strategies and teaching techniques influence the nature of vocabulary learnt, i.e. strategies can lead the learner to the direction of active or passive vocabulary knowledge. For instance, research on extensive reading provides evidence for incidental learning which can result in receptive vocabulary knowledge (Pigada & Schmitt 2006; Waring, 2006). While interpretation requires as much information as enables the learner to distinguish a lexical item from other possibilities, production requires more information. Therefore, teachers should help learners in providing a rich learning environment (Milton, 2009) and demonstrate practical teaching techniques in order to facilitate learners’ processing vocabulary.

Teaching techniques can determine learner strategies to a certain extent. Vocabulary teaching techniques refer to various procedures teachers use to help learners acquire vocabulary in the target language (Hatch & Brown, 2000). This involves a number of techniques, such as introducing and presenting the meaning and form of lexical items, recycling vocabulary as well as monitoring and evaluating the progress of learners. Moreover, teachers stimulate learners to revise, practice and consolidate their knowledge, and give guidance how to memorize and revise vocabulary items, i.e. they instruct students implicitly and explicitly to employ certain strategies to learn vocabulary. Whether instruction has a facilitative effect on learner strategies or not is difficult to define. It is not easy to determine the extent to which learners adopt teaching strategies or what kind of strategies they integrate into their repertoire, if they integrate any (Pavičič, 2008). Instruction, however, should rely on children’s natural ability of making meanings. Since children learn words in context proceeding from general to specific, vocabulary learning should not be based on parroting word lists, and, thus, leading with a vocabulary book in which the L1 and L2 words are paired and testing learners vocabulary knowledge based on this is not one of the most welcome methods in foreign language teaching (Budai, 2013; Kovács, 2009). Young children learn words when the situation and context help them learn vocabulary, so that the best source is children’s literature. For adolescents and older learners, however, it is natural to learn a

language through learning words, and thus the vocabulary book and word lists become essential parts of language learning (Kovács, 2009).

### **2.2.5 Concerns about strategies**

Several concerns were formulated in connection with strategies right at the beginning of strategy research about the real use and assessment of strategies, which also seem to prevail in current research findings. The basic problem with strategies originated from the inability to enter the human mind and the vagueness of the metalanguage accessible to researchers. Seliger (1983) argued against the possibility of finding out what strategies learners use because they are deeply embedded in the psychological mechanisms of the individuals. This fact did not hold researchers back from proposing various taxonomies on strategies (Ellis, 1986; O'Malley & Chamot 1990, Oxford, 1990; Schmitt, 1997). However, Ellis admitted that the system of learner strategies he proposed may not represent psychological reality, but was intended to be “a heuristic device for coping with the lack of precision which characterizes discussions of learning strategies” (Ellis, 1986, p. 167).

Another problem with strategies is that it is difficult to make a clear connection between the use of a strategy and learning, although it is possible to make assumptions that strategies lead to success. Strategies are not inherently good or bad, but can be used more or less effectively (Hsiao & Oxford, 2002). Different learners use different strategies in different ways and the circumstances lead to different orders of priority (Cohen & Macaro, 2007). Poor learners are able to use strategies, but with limited success, since they tend to insist on ineffective strategies (Porte 1988; Vann and Abraham 1990). Good learners, however, are able to make decisions on what to do to reinforce their learning in the contexts they find themselves (Chamot & El Dinary, 1999). Successful learners frequently use a wide range of strategies, including sophisticated and difficult ones (Grenfell & Macaro, 2007, p. 15). Strategy use can be linked to other things than the stage of learning and proficiency level. Working memory limitations, linguistic resources for strategy use and motivation to use strategies in combination should also be considered (Macaro, 2001). Gu (2003, p. 1) argues that instead of searching for the best strategies that produce the best results, the choice, use, and effectiveness of vocabulary learning strategies depend on the task, the learner, and the learning context. The investigation regarding which strategies are useful resulted in an interactive combination of top-down and bottom-up strategies (Graham, 1997). In the framing this view it is appropriate to address the issues of rote learning and learning by heart. Rote

learning means memorizing lists of L1 and L2 word pairs. Hulstijn (2000) argues that if this implies repeating information without understanding the meaning, it is not a useful strategy, but if it is used to complement of the top-down process, it may serve a learning purpose. In order to illuminate this approach an example is provided by Hulstijn (2000, p. 281) helps to explain this relationship. If, he supposes, a learner has encountered some new words in a meaningful listening and reading task, and first tried to infer the meaning, and then checked the inferences in a dictionary, finally listening the words in a vocabulary book, the learner is then able to take advantage of the word list by regularly consulting and rehearsing its contexts. This implies that an initial meaningful encounter is essential in order to process meaning, so that further encounters may serve the consolidation of vocabulary, which can be assisted by using strategies, such as memorizing word lists. Although the strategy of learning by heart is not, as such, controversial, it is necessary to be made clear that the process of presentation should facilitate understanding in order to avoid mechanical repetition. This example illustrates that strategies can be successfully used in combination, and that the isolated use of these strategies may not lead to success. Therefore, researchers do not favour the isolated use of individual strategies, but claim that the combined use of a variety of strategies, which complement each other, is most efficient and useful way forward. The existing consensus among experts on the use strategies, suggesting that they can enhance performance in language learning and use, may help to make language learning easier, faster, and more enjoyable (Cohen & Macaro, 2007), supports the relevance of training in the use of strategies.

### **2.2.6 The relevance of strategy trainings**

Strategy training appeared in educational settings in conjunction with the research interest in language learning strategies and the pedagogical implications of empirical results (Chamot, 2005; Cohen, 2005). However, strategy training has implications also for the issue of self-regulation, as well.

Strategy training is the educational representation of recent findings in learning strategies. Since it evidently feeds from current empirical results, it is an important part of L2 instruction. Although advocates of strategy training (Oxford & Scarcella, 1994) attribute to it positive effects on language learning outcomes, just like the concept of learning strategy itself, it is not a clear-cut issue. Critics of training claim that strategies should be taught individually based on the personal characteristics of the language learner, and connected to

specific school tasks. Moreover, according to new tendencies in L2 acquisition research (Oxford, 2011; Tseng et al., 2006; Tseng and Schmitt, 2008), it is not only learning strategies that should be taught, but other facilitative factors involving self-regulation. Still, most researchers set a high value on strategy training, relying on the fact that strategies can be taught and learnt successfully. Another reason for the relevance of strategy trainings comes from the difficulty of strategies. Since there are simple and complex strategies (Nation, 1990), they can be learnt and employed differently. For instance, complex strategies, such as the Keyword Method<sup>3</sup>, can be applied only through conscious learning, and their utilization depends on sequential and spatial practice.

Concerning strategy instruction, the most important issue is that the teachers themselves often do not know, or at least are not aware of strategies contributing to language learning (Sárvári, 2003). Nonetheless, learning to learn should be emphasized as early as the junior section of the primary school, together with drawing attention to strategies learners can employ to make the learning process smoother and language learning more successful. In order to provide language teachers with a range of strategies learners should employ to be able to learn individually, Sárvári (2003) listed some mnemotechniques<sup>4</sup>, such as learning groups of words, associative strategies, using words in context, etc., that may contribute to the development of vocabulary learning and help the acquisition of grammar rules, as well.

A number of models for teaching language learning strategies have been developed (Chamot, 1999; Cohen, 1998; Graham & Harris, 2003; Harris, 2003; Macaro, 2001; O'Malley et al., 1985; O'Malley and Chamot, 1990). These models follow the sequence of four steps; 1) awareness raising, 2) teacher's presentation and modelling, 3) multiple practice opportunities provided for language learners, and 4) self-evaluation of the effectiveness of strategies. When strategy training is effectively done (Rubin, Chamot, Harris, & Anderson, 2007), it increases the consciousness in strategy use, as well as learners' motivation and performance in L2. In the field of learning strategy instruction there is general consensus that instruction affirms

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<sup>3</sup> Keyword Method: In 1975, two researchers, Atkinson and Raugh developed an application of mental imagery for the acquisition of second-language vocabulary, called the *keyword method*, which divides the study of a vocabulary item into two stages. The first stage requires the learner to associate the spoken foreign word with an English word, the keyword, which sounds approximately like some part of the foreign word. The second stage requires the learner to form a mental image of the keyword interacting with the English translation. Consequently, the keyword method can be described as a chain of two links connecting a foreign word to its English translation. The foreign word is linked to a keyword by a similarity in sound (acoustic link), and the keyword is linked to the English translation by mental imagery (mnemonic or imagery link).

<sup>4</sup> Memory strategies, commonly known as mnemonics, help learners to integrate new stuff in the existing cognitive units or to retrieve the acquired vocabulary by means of particular cues (Thompson, 1987).

time and effort both in and out of the classroom (e.g. Chamot et al., 1999; Cohen, 1998; Ikeda, 2007; Macaro, 2001; Oxford, 1990).

However, there are researchers who remain sceptical about strategy instruction (Hassan, Macaro, Mason, Nye, Smith, & Vanderplank, 2005). The nature of strategies highly influences both their choice and usage, and individual differences also play considerable part in strategy use. Although some strategies may appear to be unusual, Sárvári claims (2003), this aspect makes them more remarkable, i.e., the stranger the strategy the easier it is to recall. Even though this condition can facilitate language learning, learners may not be willing to learn new strategies or turn back to applying those they had previously relied on. Learners are more efficient in retrieving the original mnemonic associations than in creating a new one or not making any associations (Cohen & Aphek, 1980). This phenomenon implies that the first, and usually simple strategies, can work more efficiently than their more complicated counterparts; however, the lack of strategy use may not result in successful vocabulary learning.

The fact that learners prefer to use strategies they have already known, and are not willing to use more complex forms gained through instruction (Cohen & Aphek, 1980), may also bring the relevance of strategy trainings into question. Therefore some researchers challenge the relevance of strategy trainings. Rees-Miller (1993), who studied the learning strategy use of unsuccessful learners, put forward the most remarkable criticism against L2 learning strategies. She claims it is problematic to say that better performance is the result of the frequent use of certain strategies. Researching the strategy use of unsuccessful learners, she concluded the reason for ineffectiveness is not necessarily a lack of repertoire or the infrequent use of strategies, but rather learners' inability to select strategies appropriate to the task. More recent findings in the specific field of task-solving strategy use also cast doubt on the relevance of strategy trainings. Nikolov (2003b) argues that similarly to the failure of finding the best language teaching methods, strategy training seems not to solve the problems of all language learners. What needs to be explored is how the use of particular strategies can be improved, and more importantly, it should be answered in what ways and to what extent strategy use contributes to a higher level of language knowledge (Nikolov, 2003b, p. 30).

All these issues question the quality of strategy training regarding the integration of components, which inevitably support language attainment, into the teaching material, since strategy training should support individual learners' needs in general. Tseng et al. (2006) argue that although the instruction of language learning strategies seems to be a necessary element of the 'learning to learn' process, learners should be empowered by the capacity of

self-regulation in order to be efficient and autonomous language learners. Thus, the old practice of strategy training cannot be maintained any longer, because although learners' attention is called to particular language learning strategies, training does not involve self-regulated language learning as a key issue. Focus must be shifted from the instruction of particular language learning strategies to the process of self-regulation, and not only strategy use, but learners' self-regulating capacity, metacognition, and motivation should be facilitated in the course of instruction, which perspectives can boost immediate impact on strategic learning.

### **2.3 Research on young learners' learning strategies and vocabulary learning**

Research on young learners investigates early second language acquisition from different perspectives (Nikolov, 2000, p. 21). The most systematically discussed issue here is the Critical Period Hypothesis (DeKeyser & Larson-Hall, 2005; Dörnyei, 2009, Nikolov 2004, Pléh, 2006), which determines the period when language acquisition occurs as a natural process, without making special efforts, and to describe declining competencies over age. Another area that has been explored in the second language context in connection with YLs is that of immersion programmes, where the target language of education is the dominant language of the social environment. The third and probably most tangible area of early-start language learning, which has been investigated primarily from educational perspectives, is the study of foreign language instruction. The vast majority of L2 research on young learners' strategies has, however, been carried out in a second- rather than a foreign-language context.

Although there are some advocates of studying young learners' second language acquisition, age-related characteristics, as it has been mentioned before, are chiefly discussed in the framework of the Critical Period Hypothesis, while other aspects of young learners' second language acquisition have not been sufficiently explored. The issues in research into early foreign language programmes have been discussed by Nikolov (2000), who prepared an inventory of what had been done in this field in Hungary and established what needs to be done to further the investigation of young learners (Nikolov, 2003a). In view of this, further research should be carried out, for example, on the success of language learning programmes, the characteristics of good classroom practice, teachers' effectiveness, realistic expectations for language attainment, attitudes and motivation, individual differences, the contribution of language exposure to learners' development outside the classroom, etc. Since these

recommendations have been made, however, a number of studies have investigated young learners' second language acquisition processes. Nevertheless, the body of research regarding children's learning strategies is quite small in the international literature, and is fairly limited in Hungary; therefore, not only strategy research but young learners' vocabulary learning and general language learning are reviewed here.

The investigation of certain patterns and directions that formulate the tendency of strategy use in the course of learning a foreign language is of crucial importance since this knowledge can contribute to a better understanding of what learners do when studying a foreign language. It can be supposed that language learning basically relies on strategies learners acquire when starting to learn a language. In the course of language learning, owing to the development in their language knowledge and metacognitive thinking, learners can explore further strategies that suit their individual learning goals. Moreover, the use of the primarily employed strategies can develop, be modified or most importantly be adapted for situations, contexts, personal needs, and learning styles. Strategy use seems to alter with time and language proficiency; therefore, if young learners' strategy use is not adequately investigated, deductions can be vague in respect to the development of strategy use in older learners.

One of the most important issues regarding young learners' language learning enquires is what children learn in the English language class. Language learning aptitude, such as vocabulary, grammar structures, reading comprehension, and writing skills of children from different types of schools were measured by Bukta (2001). She found that learners' in year 7 solved the vocabulary exercises with the highest success, similarly to learners in year 11. As the author concludes, results indicate that teachers emphasise learning more and more words and practising grammar, meanwhile they neglect developing language competencies needed in everyday life. The extensive use of grammar instruction and translation to disclose word meaning shows the privilege of certain teaching strategies in Hungarian language education, which, although intending to support vocabulary learning, fail to facilitate it.

Based on classroom observations, Orosz (2007) asserts that English lessons do not provide enough opportunity for the thorough acquisition of vocabulary, even though Hungarian learners have 592 foreign language classes from grade 3 to 8 at their disposal, and they usually learn in small study groups based on their language achievement. One of the reasons for this insufficiency, according to Orosz (2007), can be found in the tendency that next class test-taking is based on the memorisation of English – Hungarian word lists and tests in general are employed without providing learners with further practicing opportunities.

Tests assessing immediate word knowledge neither facilitate word retention in the long run, nor motivate learners to revise vocabulary on a regular basis. Ultimately, the vocabulary learnt in this manner is blotted out of learners' working memory due to insufficient practice. Language classes should not only ensure vocabulary learning but have to provide various practice opportunities to language learners. Course materials should offer sufficient input reinforcing newly learnt words. From these facts it emerges that inappropriate classroom practices need to be altered, and, at the same time, learners should be encouraged to use a wide range of strategies that help vocabulary learning.

As for students' working memory and vocabulary learning, there are a number of issues that need to be investigated; for example, how many words students remember by the next lesson, what kind of learners remember words better, which words are easier to remember, whether learners remember one-syllable, two-syllable or three-syllable words better, or if there is a difference in difficulty in performing recall or recognition tests. Case studies (Szpotowicz, 2000) present 7-8-year-old pupils' profiles that reflect their classroom behaviour. Learners remembered a different number of words and those who concentrated on tasks during learning sessions achieved better results. The best remembered words were those that belong to the same semantic group and contain words children like, for example, the names of animals. No correlation was observed between the number of syllables and the learnability of the word. To recall a word from memory when seeing a visual stimulus was more difficult for learners than to recognise the name when hearing it. Recall tests were based on eliciting productive vocabulary and recognition tests on receptive vocabulary; therefore, comparing the results highlights the differences between the two aspects of language learning but does not tell about the learning process. This means that words can be part of either the productive or the receptive vocabulary; the different testing procedures do not define the process which helps learners best in production. However, testing productive and receptive vocabulary differently may assist in consolidating positive attitudes towards language learning, thereby facilitating acquisition (Nation, 2001). In this section so far I have summarized research on YLs in general, and now I turn to discuss strategy research from a general perspective.

Strategy research aims to underline processes that help learners to acquire a foreign language, and, thus, investigating test-taking strategies (Cohen, 2012), a sub-category of learning strategies, opens a new direction to strategy research. Nikolov (2003b) assessed language learning strategy use of sixth graders on reading comprehension and writing tasks in English as a foreign language. In think-aloud protocols, learners verbally reported what they



were doing while working on a language task, and they reported using a wide range of combined test-taking strategies. Language learners in a foreign language classroom, where the teacher and the learners share the same mother tongue, usually turn to the vernacular when faced with communication problems. Mother tongue use was employed as a primary strategy for translating and rephrasing texts written in English. Hardi (2011b) also found that mother tongue was mainly used for translation among elementary school learners in grades 3-6. Although some of the participants in Nikolov's study (2003b) reported using strategies consciously, no relationship was found between the level of consciousness and attainment, and between the use of strategies and long-term results of language learning. Some learners used the very same strategy items solving language tasks, while others employed different strategies, although rather infrequently. The results can draw attention to inadequate task-taking strategies; however, it would be very difficult to determine how much the result of the task solved reflects the strategy used for doing it.

Encounters with native speakers provide opportunities for using the target language (Szulc-Kurpaska, 2000). Communication strategies of 11-year-old children in a language class conducted by a native language teacher revealed that learners applied mainly nouns to convey meaning and besides using single words and formulaic chunks, coined new words were recalled. Learners switched into the mother tongue when communication problems occurred, but in situations where they had to rely on their language competencies they were able to employ the knowledge they had already acquired and used the language accordingly. In this case, learners had been exposed to a variety of input over the four years of intensive daily EFL learning, nevertheless they were either not prepared for the situation in which data was elicited by contact with a native speaker of English, or were not able to apply their passive knowledge. The result that at this stage of language acquisition single words and language chunks were used for communication purposes underlines the significance of vocabulary knowledge and implies that first vocabulary is exploited when learners find themselves in a situation of real communication.

Although literature written in English is the most cited and may receive the most attention, I have to mention some important contributions to the field of strategic vocabulary learning written in other languages. Sperber (1989), using a strategy questionnaire on strategies, investigated what kinds of teaching techniques make the memorization of German nouns easier, and suggested a great variety of strategies, such as using pictorial representation and word association based on key words and colours to learn nouns more efficiently. Bimmel and Rampillon (1996) also investigated learning strategies in German, and made a distinction

between direct and indirect strategies. They claimed that direct or cognitive strategies have a direct connection to the learning material and its use, while indirect strategies, although not having a direct link to learning, are essential for success. They describe how the four different groups of memory strategies or mnemonic techniques, such as strategies creating mental links, connecting sounds and pictures, helping revision, and utilising kinaesthetic methods, contribute to learning vocabulary.

The studies reviewed in this section either focus on young learners' vocabulary learning or language learning strategies but do not deal with the joint concept of vocabulary learning strategies. Furthermore, research on vocabulary learning summarized above investigates certain aspects of language learning strategies, such as test-taking strategies or communicative strategies, but there is no published research in the Hungarian context on exploring how YLs in different classes of the primary school employ vocabulary learning strategies to acquire a foreign language. In this dissertation I intend to make up for this lack of current research by investigating vocabulary learning strategies in the broader framework of self-regulation.

## **2.4 Self-regulated language learning**

### **2.4.1 Self-regulation and strategic language learning**

Self-regulation and self-regulated learning are associated with the broader field of educational psychology and refer to the “many processes by which the human psyche exercises control over its functions, states, and inner processes” (Vohs & Baumeister, 2004, p. 1). The notion of self-regulation applied in second language acquisition is adapted from this field, and recent interest in learning strategies or strategic learning has found a new way to discuss L2 learning in relation to self-regulation.

In recent literature, emphasis from conceptualizing learning strategies has shifted to the most important issue of how to distinguish strategic learning from ‘ordinary’ learning. Conceptualizing the notion of *strategic learning* is a central problem among theoreticians and practitioners alike. Weinstein et al. (2000) set three critical characteristics of strategic learning: *goal-oriented*, *intentionally invoked*, and *effortful*. However, Dörnyei (2005, p. 164) claims that these characteristics can apply to ‘*hard and focused learning*’ in general. Moreover, he adds, if these are the characteristics of strategic learning we may equate ‘strategic’ with ‘motivated’ because these are the key features of motivation, as well. A

further important aspect of learning strategies was defined by Cohen (1998). The *element of choice*, he argues, is an essential feature of learning strategy use since these strategies are voluntarily employed by the learner. Unfortunately, choice is not enough to distinguish strategic from non-strategic behaviour, since learners make a lot of choices in the learning process, which cannot be considered strategic (Dörnyei, 2005).

Strategic learning can be conceptualized based on the notion of self-regulation. In line with contemporary theories of self-regulation in educational psychology, the new approach of learning strategies (Tseng et al., 2006) makes a distinction between self-regulated learners who apply strategic learning and their peers who do not. This new conceptual framework puts forth learners' innate self-regulatory capacities that help them choose and employ certain strategies for language learning, rather than focusing on the outcomes of learning strategies. Tseng et al. (2006, p. 81) claim that "it is not what learners do that makes them strategic learners but rather the fact that they put *creative effort* into trying to improve their own learning" (emphasis mine). The degree of creative effort can depend on a number of learner factors, and thus, on the age of the language learner.

Although the conceptual shift has not offered a solution to the problem of what learning strategies or self-regulatory mechanisms are precisely, it has significantly broadened the perspective. "Self-regulation refers to the degree to which individuals are active participants in their own learning; it is a more dynamic concept than learning strategy" (Dörnyei, 2005, p. 191). Self-regulation through specific beliefs and processes highlights learners' own strategic efforts to manage their own achievement (Zimmerman & Rinseberg, 1997, p. 105). Dörnyei (2005, p. 191) argues that self-regulation is a 'process-oriented construct', which approaches to language learning from a different point of view:

The notion of self-regulation is a multidimensional construct, including cognitive, metacognitive, motivational, behavioural, and environmental processes that learners can apply to enhance academic achievement. Thus, we face a rather blurry situation, not unlike we did in the study of learning strategies, namely that a particular concept overarches virtually all the main aspects of psychology. However, because in this case we have a process-oriented construct on our hand, it may be sufficient to identify the core dynamic energizer of the process, which is more manageable than to define the outcome.

Self-regulation can be seen as the cooperation of several integrated and interrelated microprocesses, which can be further divided into a variety of items. Viewing it from this multidimensional perspective, learning strategy use can be considered as one dynamic component of self-regulated learning. Another essential item is metacognition, which is

typically conceptualized as a language learning strategy in strategy research. However, a group of international strategy experts strongly agree that “overall metacognitive control must be present for a mental action to be ‘strategic’ and that metacognitive strategies are the overarching strategies determining the cognitive strategies the learner will deploy” (Cohen, 2007, p. 32). This view does not only highlight the significance of metacognition, but provides evidence for discussing it as an individual factor in self-regulated learning.

Self-regulation, besides the cognitive and metacognitive components, includes motivational self-regulation. Motivational self-regulation relies on the belief that learners are able to maintain their motivation and keep on-task while learning. Learners’ “ability to remain in control of their attitudinal/motivational disposition should be seen as an important determinant of self-regulated learning and achievement” (Dörnyei, 2005, p. 91). Further components of self-regulation include self-motivational beliefs (for example, goal orientation, intrinsic interest, outcome expectations, and self-efficacy), evaluation and self-reflection, and satisfaction with one’s effort (Zeidler, Boekaerts, & Pintrich, 2000).

In a recent study, Csizér and Kormos (2012) investigated the connection between language learning autonomy, self-regulation strategies, and motivation. In a large-sample study (n=670) they examined language learning in three age groups: secondary school learners, university students, and adult language learners. They found that although the participants appeared to be motivated to learn English, their level of autonomy and use of self-regulation strategies were lower than their level of motivation, which was explained by the learner-centred nature of Hungarian classes. Moreover, learners’ autonomy and self-regulation strategies demonstrated only partial overlap, which indicated that they could be treated as separate constructs.

In the present dissertation, emphasis is placed on the above mentioned constituents of self-regulated language learning in the specific field of learning vocabulary. These constituents are in line with self-regulated learning theories (Schunk & Zimmerman, 1994; Zimmerman, 1990), which provide a comprehensive view of learning emphasizing interaction between cognitive, metacognitive, and motivational strategies that generate effective learning. According to the comprehensive view of learning self-regulated learners do not only use a range of cognitive strategies but have a certain degree of metacognitive understanding of their learning process which enables them to use strategies on certain occasions and in certain situations, and to adapt their knowledge to new conditions. They employ metacognitive strategies, such as planning, monitoring, and evaluating to conduct their learning and are aware of what they do or should do to be efficient. Self-regulated learners are motivated and

the key factor of their motivation is the certainty of being able to succeed. Motivation is supported by a range of affective strategies, such as self-efficacy, satisfaction and self-evaluation, all serving as reminders of success (Schunk & Zimmerman, 1994; Zimmerman, 1990). Therefore, in this dissertation, learners' self-efficacy, satisfaction, self-rewarding, skilfulness, and anxiety control are investigated as self-motivational strategies, belonging to the larger group of affective strategies which control emotional mechanisms while learning a language. These concepts are defined in detail when presented and exemplified in the first research part of the dissertation dealing with my original research (section 4.1.2).

Putting the whole research into the framework of self-regulation, its above-mentioned fundamental categories, such as vocabulary learning strategies, metacognition, motivation and self-motivating strategies, as well as self-regulating capacity in vocabulary learning, will be investigated as the primary constituents of self-regulated vocabulary learning. In the following, I will discuss these categories in more detail.

#### **2.4.2 Self-regulating capacity in vocabulary learning**

'Self-regulatory mechanisms' resemble 'learning strategies' to a great extent and they formulate an aspect of self-regulation. Nevertheless, they create more flexibility for researchers by shifting the focus from strategies to self-regulation, i.e. from the product to the process (Dörnyei, 2005). The system of self-regulating capacity Dörnyei proposes is based on Kuhl's (1987), and Corno and Kanfer's (1993) taxonomy of action control strategies, which are not limited to learning vocabulary. The categories are defined as follows:

1. *Commitment control strategies* for helping to preserve or increase the learner's original goal commitment (e.g., keeping in mind favourable expectations or positive incentives and rewards; focusing on what would happen if the original intention failed).
2. *Metacognitive control strategies* for monitoring and controlling concentration, and for curtailing unnecessary procrastination (e.g., identifying recurring distractions and developing defensive routines; focusing on the first steps to take in a course of action).
3. *Satiation control strategies* for eliminating boredom and adding extra attraction or interest to the task (e.g., adding a twist to the task; using one's fantasy to liven up the task).
4. *Emotion control strategies* for managing disruptive emotional states or moods, and for generating emotions that are conducive to implementing one's intentions (e.g., self-encouragement; using relaxation and meditation techniques).
5. *Environmental control strategies* for eliminating negative environmental influences and exploiting positive environmental influences by making the

environment an ally in the pursuit of a difficult goal (e.g., elimination distractions; asking friends to help one not to allow to do something).

(Dörnyei, 2005, p. 113)

Tseng et al. (2006) designed a questionnaire based on the above mentioned control mechanisms to measure the self-regulating capacity in vocabulary learning (SRCVoc). A scale of SRCVoc was developed on the results, which consists of twenty items belonging to the broader aspects of self-regulation in vocabulary learning. Table 2 presents the item numbers and the statements of SRCVoc (Tseng et al., 2006, pp. 98–99). The statements below refer to learning experience:

*Table 2: Self-regulating capacity in vocabulary learning scale (SRCVoc)*

1.	Once the novelty of learning vocabulary is gone, I easily become impatient with it.
2.	When I feel stressed about vocabulary learning, I know how to reduce this stress.
3.	When I am studying vocabulary and the learning environment becomes unsuitable, I try to sort out the problem.
4.	When learning vocabulary, I have special techniques to achieve my learning goals.
5.	When learning vocabulary, I have special techniques to keep my concentration focused.
6.	I feel satisfied with the methods I use to reduce the stress of vocabulary learning.
7.	When learning vocabulary, I believe I can achieve my goals more quickly than expected.
8.	During the process of learning vocabulary, I feel satisfied with the ways I eliminate boredom.
9.	When learning vocabulary, I think my methods of controlling my concentration are effective.
10.	When learning vocabulary, I persist until I reach the goals that I make for myself.
11.	When it comes to learning vocabulary I have my special techniques to prevent procrastination.
12.	When I feel stressed about vocabulary learning, I simply want to give up.
13.	I believe I can overcome all the difficulties related to achieving my vocabulary learning goals.
14.	When learning vocabulary, I know how to arrange the environment to make learning more efficient.
15.	When I feel stressed about my vocabulary learning, I cope with this problem immediately.
16.	When it comes to learning vocabulary, I think my methods of controlling procrastination are effective.
17.	When learning vocabulary I am aware that the learning environment matters.
18.	During the process of learning vocabulary, I am confident that I can overcome any sense of boredom.
19.	When feeling bored with learning vocabulary. I know how to regulate my mood in order to invigorate the learning process.
20.	When I study vocabulary, I look for a good learning environment.

Note: Commitment control: items 4, 7, 10, 13; metacognitive control: items 5, 9, 11, 16; satiation control: items: 1, 8, 18, 19; emotion control: items 2, 6, 12, 15; environmental control: items: 3, 14, 17, 20.

Source: Tseng et al., 2006, pp. 98–99.

Participants have to indicate their degree of agreement on a six-point Likert scale, the answers of which vary from ‘strongly agree’ to ‘strongly disagree’. Empirical data indicates that the instrument has good psychometric properties, and that the subscales belong to the higher-order factor termed SRCVoc, which functions also as the name of the instrument.

However, there are critics of this new instrument since the classification is exclusively based on the self-regulatory control mechanisms. Grenfell and Macaro (2007) are convinced that “Dörnyei may be setting up a straw man in order to knock him down” (p. 26) and continues saying that he fails to notice that “in fact a number of researchers in the field (for example, Hsiao & Oxford 2002; Macaro 2001) have called for a much more fine-grained

association between strategy use and specific tasks”. Rose (2012) argues that “this instrument [SRCVoc] alone would only provide an understanding of the underlying self-regulatory capacity of a learner, rather than strategy use itself” (p. 95), and thus, reconceptualising strategic learning in the face of self-regulation is “throwing language learning strategies out with the bathwater” (Rose, 2012, p. 1). Regardless of the criticisms, the concept of self-regulation continues to infiltrate into strategy research and new models emerge. Lin and Oxford (2009) examined strategic learning from micro and macro perspectives in the framework of psychological and sociocultural theories, and developed a model that involved self-regulation. Weinstein’s model (2009) examined strategic learning in the framework of learner skill, learner will or motivation and self-regulation. Rose’s model (2011) “merges elements of cognitive and memory strategies from SLA and language cognition theory with motivation control and self-regulation theory” (p. 97). Oxford (2011) developed the ‘Strategic Self-Regulation’ (S<sup>S</sup>R) model and addressed the use of strategies for self-regulation to enable learners to become independent so that they can be in control of their own learning.

Gao (2006) suggests that the model of self-regulating capacity is not incompatible with language learning strategies, since they are measuring the same event from different perspectives, i.e. self-regulation involves the initial driving forces of language learning and strategy research examines the outcome of these forces. I share Gao’s idea that these aspects of language learning contribute to success, and call for other factors that belong to the concept of strategic learning. Therefore, not only the constituents of the self-regulatory control mechanisms and vocabulary learning strategies will be elicited in this research to create the profile of young learners’ strategic learning but metacognitive, motivational, and self-motivational strategies, as well.

### **2.4.3 Metacognition**

Metacognition can be defined as ‘cognition about cognition’, or ‘knowing about knowing’ and can help children’s ‘learning to learn’ process (Livingston, 1997). It includes knowledge about when and how to use particular strategies for learning or for problem solving. Metacognition and its constituents have been investigated along two lines. Cognitive psychology has studied the determinants and consequences of monitoring knowledge (Flavell, 1979), while in developmental psychology the role of metacognitive processes in children’s memory functioning has been investigated (Sternberg, 1998). From the developmental perspective the examination of metacognition lead to further research and expanded to the

field of education, where the conceptualisation of metacognition is attributed to John Flavell. Flavell (1979) states that metacognition consists of metacognitive knowledge and metacognitive experiences or regulation.

Metacognitive knowledge is used to control knowledge of cognitive processes and includes knowledge about variables that interact with each other. The conditions of the learning process and the learner's individual beliefs contribute to metacognitive knowledge in a conscious or unconscious way. According to Wenden, metacognitive knowledge is "a prerequisite for the self-regulation of language learning: it informs planning decisions taken at the outset of learning and the monitoring processes that regulate the completion of a learning task..." (1998, p. 528). We speak about 'metacognitive knowledge' if knowledge is actively used in a strategic manner to ensure meeting a certain goal. Strategic knowledge, besides learner and task variables, is a constituent of metacognitive knowledge (Flavell, 1979). Knowledge about strategies refers to the awareness in the use of strategies while completing a task. Livingston (1997) extends the scope of metacognitive strategies and adds knowledge about cognitive strategies, and knowledge that enables the learner to decide on the conditions of applying strategies properly.

Metacognitive experiences refer to conscious cognitive and affective experiences, which involve the use of metacognitive strategies (Flavell, 1979). The metacognitive learning process is divided into five primary components: (1) preparing and planning for learning, (2) selecting and using learning strategies, (3) monitoring strategy use, (4) orchestrating various strategies, and (5) evaluating strategy use and learning (Anderson, 2002, p. 1).

In the literature on learning strategies a growing importance has been attached to metacognition. It appears among the main types of strategies that learners employ for language learning (Oxford, 1990). Gunning's Children's SILL (1997), and the Taiwanese Children's SILL (see in Oxford, 2003b) list five behaviours in the metacognitive strategy category: (1) organizing time to study English, (2) looking for chances to practice English, (3) listening closely to someone who talks in English, (4) checking progress in English, and (5) analyzing mistakes. Since all these items are closely related to self-regulated language learning, metacognition seems to override the vague boundaries of learning strategies (Tseng & Schmitt, 2008) and can be handled as an individual entity chiefly assisting the process of language learning. Regarding the use of metacognitive strategies it is presumed that the Hungarian children I involve in the investigation do use these or other similar strategies in the course of language learning, therefore metacognition is discussed as a primary facilitator of the learning process in the framework of self-regulated vocabulary learning. Doró and Habók



(2013, see also Habók & Doró, 2012, 2013) investigating elementary school learners' learning strategies found that the most preferred group of the strategy categories was metacognitive strategies. This recent finding also supports the idea of putting extra emphasis on metacognition in international studies.

Accordingly, metacognition is addressed from two different perspectives. On the one hand, metacognition is considered to be one of the main constituents of self-regulated language learning and is investigated in this broader framework. On the other hand, the potential level of young learners' metacognitive awareness is addressed, which enables them to report on their own learning procedure. This view is essential to ensure the success of the whole research.

The development of metacognition is attached to the acquisition of the theory of mind (Wellman, 1990) whose appearance can happen at the age of 3–5, and which as a cognitive ability highly determines the development of metamemory and metacognitive knowledge whose development is life-long (Gyóri, Várnai, & Stefanik, 2004). The appearance of metacognitive abilities is at the age of 8-10 and they develop with age (Gósy, 1999). Researchers seem to agree that children, irrespective of their proficiency level, are capable of describing their learning and thinking processes in depth, indicating that “metacognitive awareness begins at quite an early stage” (Chamot & El-Dinary, 1999, p. 31). This fact underpins the success of research among YLs suggesting that they are able to report on what they are doing when learning a language, and highlights the importance of examining young learners' metacognitive strategies as one of the main constituents of their self-regulated language learning, as well as the importance of examining the development in young learners' vocabulary learning. Since age-related differences in strategic vocabulary learning have been addressed in this research, the development of metacognition is a crucial factor in the investigation.

Since metacognitive knowledge involves learner beliefs (Wenden, 1999, p. 435) which shape attitudes and consequently impinge on motivation, the contribution of motivation to the language learning process also needs to be investigated as another essential factor that determines self-regulated behaviour.

#### **2.4.4 Motivation and self-motivation**

In the case of motivation, the language learner possesses a motive, i.e., an inner drive, impulse, intention, or goal that causes the person to carry out a certain action (Oxford, 2003a).

In the field of L2 learning motivation research is associated with the name of Gardner and Lambert (1972) who set up a social-psychological model of motivation which was further developed by Gardner in 1985. This model distinguished between integrative and instrumental orientation for language learning and in the 1990's was expanded to include a variety of dimensions. Subsequently, new models emerged (e.g. Crookes and Schmidt, 1991; Dörnyei, 1994; Gardner & Tremblay, 1994), and the construct of L2 motivation was broadened to embrace concepts, such as intrinsic and extrinsic motivation (Deci & Ryan, 1985), self-efficacy (Bandura, 1986, Gardner, 1985), expectancy of success (Wigfield & Eccles, 2000), and goal properties (Ames, 1992; Locke & Latham, 1990). Although these motivational theories can entail motives that appear in the course of learning a language, they fail to take the dynamic and fluctuating temporal nature of motivation into account.

More than three decades of L2 motivation research indicates that motivation is a complex and manifold construct, which can be addressed by means of different lines of enquiry (Csizér & Dörnyei, 2005; Dörnyei, 2001b, Hardi, 2011c). Motivation is agreed to be a critical determinant of success in language learning, hence, it must be assumed that it also facilitates vocabulary learning. Nevertheless, until recently only a small number of studies have been carried out to examine the role of motivation in this particular field. Elley (1989) found that interesting teaching materials raised learners' motivation to learn words. Gardner and MacIntyre (1991) found that both instrumental and integrative motivation facilitate vocabulary learning. Although the importance of motivation in vocabulary learning is elucidated, these findings fail to treat motivation as a dynamic construct.

Motivation is multidimensional in nature, and it rarely remains constant in the process; instead, it fluctuates with the time and energy put into it. Self-motivating strategies can be characterized "as a dynamic system of psychological control processes that protect concentration and directed effort in the face of personal and/or environmental distractions, and so aid learning and performance" (Corno, 1993, p. 16). The dynamic nature of motivation is considered to be relevant to studying vocabulary, since vocabulary learning takes an extended period of time, and a "realistic educational model of the vocabulary learning process therefore needs to consider how that process is affected by a learner's ever-changing motivational state" (Tseng & Schmitt, 2008, p. 360, see also Dörnyei & Otto, 1998). Based on this idea, Tseng and Schmitt (2008) integrated the categories of 'Initial Appraisal of Vocabulary Learning Experience' (IAVLE) and 'Post-Appraisal of Vocabulary Learning Tactics' (PAVLT) into their model of motivated vocabulary learning.

Strategies used for the Initial Appraisal of Vocabulary Learning Experience in this motivated vocabulary learning model elicit information about self-efficacy and anxiety. *Self-efficacy* was also discussed by Gardner (1985) and vocabulary learning *anxiety* by Horwitz, Horwitz, & Cope (1986). These aspects form parts of the motivation construct *self-confidence* (Dörnyei, 1994), whose definition and elements are discussed in section 4.1.2 (Phase 1 part 1) setting out the analysis, next to the relevant examples. A further item of Initial Appraisal of Vocabulary Learning Experience involved in the model of self-motivational vocabulary learning is *attitude*. The construct of Post-Appraisal of Vocabulary Learning Tactics is another category in Tseng and Schmitt's scale, which includes the items of *satisfaction*, *skilfulness*, and *helplessness* (Tseng & Schmitt, 2008). The Post-Appraisal of Vocabulary Learning Tactics denotes self-reflection of the learning process, and learners' critical retrospection contributes to the accumulated experience which allows to elaborate internal standards (Dörnyei, 2001b).

The categories of IAVLE and PAVLT can be jointly discussed as self-motivational strategies, which influence language learners' in-progress behaviour, since self-motivating strategies are strategies that "enable the learners to take personal control of the affective conditions and experiences that shape their subjective involvement in learning" (Dörnyei, 2005, p. 110). The reason for eliciting these aspects of self-motivational behaviour separately in Tseng & Schmitt's model (2008) was to make the recursive nature of motivated language learning visible. In view of that, language learning feeds from initial motivation that should be maintained throughout the process, and at the post-appraisal stage further develops to warrant the recursive nature of motivated language learning and to ensure the condition of motivation at the beginning of the recurring learning situation.

In the present research motivation is addressed from a traditional and a dynamic perspective. I investigate how vocabulary learning behaviours are initiated, maintained and evaluated during the course of learning. Therefore, although the chief motives that generally guide the learning of words are disclosed, emphasis has been placed on the process and self-evaluation of vocabulary learning, i.e. learners' self-motivational behaviour is assessed by investigating motives, such as self-efficacy, anxiety, satisfaction, etc., which work in-progress and penetrate the entire learning process. Consequently, besides the basic motivational factors, young learners' motivational behaviour is assessed as a primary constituent of their self-regulated vocabulary learning.

## 2.5 Summary

So far, in this dissertation, I have examined young learners' self-regulated vocabulary learning and explored its categories in terms of strategic behaviour. Based on the theoretical framework presented above, I hold the position that although there is a necessity to investigate young learners' learning strategies, and, thus, vocabulary learning strategies, their assessment must be complemented with other aspects of strategic learning, and the entire phenomenon should be discussed within the framework of self-regulated language learning. Therefore, the aspects I have scrutinized besides vocabulary learning strategies are metacognition, self-regulating capacity, motivation, and self-motivation, which all seem to be vital components of the dynamic system of self-regulated language learning. These factors can be further divided into items which more specifically describe the whole construct.

The different classifications provide background for each aspect of strategic vocabulary learning used in this present research. Vocabulary learning strategies give a framework to investigate the strategy items YLs use in terms of cognitive, memory, social, and metacognitive strategies, which represent some of the categories in Oxford's taxonomy (1990). Self-regulating capacity is based on Tseng et al.'s model (2006), which differentiates commitment-, metacognitive-, satiation-, emotion-, and environment control mechanisms. Metacognition is investigated by using the category items of Gunning's Children's SILL (1997). Self-motivation is discussed based on the concepts of the IAVLE and the PAVLT (Tseng & Schmitt, 2008). This comprehensive view is expected to provide an overall picture of young learners' self-regulated vocabulary learning in a Hungarian context.

As I have argued in the literature review the notion of 'learning strategies' is rather vague, and there is no general consensus regarding the use of a single definition for research purposes. Therefore, in this dissertation Oxford's broad definition that describes language learning strategies as "behaviours or actions which learners use to make language learning more successful, self-directed and enjoyable" (Oxford 1989, p. 235) is applied as a work-definition and extended to the items that belong to the above-mentioned factors of vocabulary learning. Consequently, not only vocabulary learning strategies, but also personal goals, and patterns of self-evaluation are characterized as strategies, and since these aspects of vocabulary learning highly contribute to exerting 'creative effort' in language learning the whole phenomenon is described as 'strategic language learning' Tseng et al. (2006, p.81).

## **CHAPTER 3**

### **METHODOLOGICAL CONSIDERATIONS AND OVERVIEW**

#### **3.1 Research aim**

The aim of this dissertation is to present a comprehensive picture of the strategic EFL vocabulary learning of primary school pupils in Kecskemét, Hungary based on qualitative and quantitative research methods. Besides exploring the strategies YLs employ, the dissertation aims to reveal age-related differences in young learners' strategic behaviour. Moreover, relying on young learners' strategy use, the various categories of self-regulated vocabulary learning are outlined. Another goal of this research is to explore the development of a quantitative instrument which makes measuring young learners' strategic behaviour in vocabulary learning possible and reliable. "The reliability of a psychometric instrument refers to the extent to which scores on the instrument are free from errors of measurement" (Dörnyei, 2003, p. 110). The instrument is used to elicit, assess and evaluate young learners' strategic vocabulary learning in the framework of self-regulated behaviour in order to explore the main constituents of self-regulated vocabulary learning.

Before developing the instrument for measuring young learners' self-regulated vocabulary learning, young learners' strategic vocabulary learning has to be determined, in terms of what strategies they employ and how they govern their learning activity. Based on preliminary qualitative data gathered by personal interviews and classroom observation, the quantitative instrument is developed which is suitable for gathering more information in terms of the underlying factors of self-regulated behaviour, such as motivation, self-motivation, vocabulary learning strategies, metacognition, and self-regulating capacity. In the process of development these plausible constituents of the instrument are evaluated.

##### **3.1.1 Research goals and questions**

In this section, the specific research goals and questions are presented in relation to the main phases of the research which are noted below and are explained in detail in the following sections:

## ***Research goals***

Phase I: Eliciting, describing, and classifying young learners' strategies used for learning vocabulary in the framework of self-regulated learning behaviour

The main goal of this phase was to explore the extent to which YLs were strategic and self-regulated in vocabulary learning, and by gaining an initial insight into their learning behaviour to contribute to the further viability of the research. In this phase, qualitative data was collected by the means of personal interviews, and this data was corroborated by classroom observation and supplemented with life data. The data was described and classified to form the categories of young learners' self-regulated (SRV) learning and to provide the basis for the quantitative instrument developed in Phase II.

Phase II: Creating and developing a quantitative instrument to research young learners' SRV learning

In this phase of the research the main focus was on creating, developing, and validating a quantitative questionnaire that was used in the last phase of the research to measure age-related differences in the use of YLs' vocabulary learning strategies and self-regulation. First, a questionnaire was constructed based on the qualitative data, which allowed for collecting structured information on young learners' self-regulated vocabulary learning, and then the structured questionnaire was validated by a focus group interview. The goal of collecting structured data was to formulate the statements of a Likert-type rating scale relying on young learners' utterances about their strategic vocabulary learning. The rating scale was a quantitative questionnaire that was constructed to collect quantifiable data. Finally, the scale was piloted in this phase in order to ensure its reliability and validity, and to come up with a research instrument that can be used for further research purposes.

Phase III: Measuring young learners' SRV learning and age-related differences by using the quantitative instrument

The main goal of this phase is to explore age-related characteristics of and differences in strategic vocabulary learning and to find explanations for the tendencies emerging across ages. In this phase of the research the quantitative instrument developed in the previous phase

is applied to assess young learners' strategies based on the categories of self-regulated vocabulary learning.

### ***Research questions***

The research questions are formulated to serve the basic goals of exploring what young learners do when learning vocabulary, and describing the characteristics of young learners' SRV learning. The research questions are connected to the main phases of the research, although further issues are addressed in some parts of the research.

1. Based on the theoretical framework, what kinds of strategies and self-regulated behavior are reported and demonstrated by young learners in learning vocabulary?
2. Based on the qualitative data collected in the first phase of the research, to what extent can a quantitative research instrument be developed which adequately reflects the underlying qualitative categories emerged, and which young learners of various ages are able to effectively use?
3. Based on the quantitative instrument developed in the second phase of the research, what patterns of young learners' self-regulated vocabulary learning are revealed in a large-scale investigation within and across age groups?

### **3.2 Methodological considerations and overview**

In this chapter I intend to discuss methodological issues which had to be taken into consideration before the research was carried out, and since the structure of the research is rather complex, I intend to provide an overview of its organization. The multifaceted nature of the research and the combination of different means of methodology made it necessary to highlight general methodological issues and present an overview of the research structure. First, the methodological issues that provided background for the research are discussed, and, then, the common features of the phases of the research are outlined.

In the field of vocabulary learning strategies, as has been pointed out in Chapter 2, most of the research has been directed at secondary and university students', or adult learners'

language acquisition processes, and learning strategy use has typically been measured by the means of quantitative questionnaires. Although quantitative questionnaires are one of the most efficient and comprehensive instruments for assessment since they provide data for statistical analyses, research goals generally require the fusion of techniques, i.e. methodological triangulation, which can result in a more refined outcome (Szokolszky, 2004). The application of different – qualitative and quantitative – data collecting methods can lead to more sophisticated results, since multiple sources provide more insights into what learners actually do. Therefore, in this research applying methodological triangulation, both qualitative and quantitative data is collected by the means of different types of interviews and questionnaires.

The research consists of three phases, further divided into one or two parts. Therefore, starting to build up the whole research, it was essential to execute initial data collection in order to ensure feasibility in two respects. First, since research on young learners' strategic vocabulary learning has not been carried out in a Hungarian context, collecting preliminary data was essential in providing a point of departure for the research. Second, it was necessary to ascertain the viability of the research among YLs. Their metacognitive thinking and understanding, and their ability to verbalize what they actually do while learning a language were central issues to deal with. Therefore, personal interviews were conducted in the first phase of the research to elicit strategies elementary school children use for vocabulary learning and to make sure YLs can effectively be involved in a research on strategic vocabulary learning. Since the research is based on the preliminary data and the consecutive research parts rely on each other, making sure of the effectiveness and usability of the instruments and data collection methods continued through the whole research. The issues relating to specific methodological considerations based on theoretical problems are discussed at the relevant part of each phase.

In the following, I intend to outline the general features of the research in order to provide an overall view of its structure.

### **3.3 Overview of methodology**

Each part of the three phases is outlined in this section from a general perspective, leaving space for specific information at the beginning of each research section before the presentation of the results. Before delineating the phases, the participants and settings



involved in the research are described in general, since these variables are adjusted to the special conditions in the different parts of the research. Also, the most important requirements in connection with developing the instruments are indicated from a general perspective. Hence, the general methodology parts outlined in this section are more specifically developed at the beginning of each section of the research.

### **3.3.1 Participants and settings**

Hungarian primary school children from grades 3 to 8<sup>5</sup> took part in each phase. Participation was voluntary throughout the research; learners who were willing to participate were chosen at random by their language teachers. All of the participants were learning English as a foreign language in a school setting. Children in each phase of the research were involved from three major age groups – grades 3 and 4, 5 and 6, and 7 and 8 – in order to cover the population of language learners in a primary school. The youngest age group whose vocabulary learning was investigated comprised third and fourth graders, first and foremost, because they started learning a foreign language in these classes and because it was supposed that they had developed a certain level of metacognitive thinking and understanding (Chamot & El-Dinary, 1999) that allowed them to verbalize their learning process. After the age of 6, language awareness is strengthened through the process of studying the native language in school, and it develops parallel to the cognitive development of one's mother tongue. There are further stages to acquiring the mother tongue. For example, the language awareness of 7-10-year-olds is at a level that makes the introduction of institutional language teaching possible (Gósy, 1999, p. 189). As for self-regulation, Zimmerman (1989) claims that in elementary school, "students can be described as self-regulated to the degree that they are metacognitively, motivationally, and behaviourally active participants in their own learning process" (p. 4). However, the characteristics of self-regulation also vary with age and development, and it is not clear how these changes in self-regulation occur (Bronson, 2000, p. 4). Therefore, the youngest participants involved in the research are third graders, 8-9-year-old children, who have been studying at a primary school for three years. The age-related changes in metacognition, language awareness, and self-regulation provide a good opportunity for looking at the development of strategic vocabulary learning across ages.

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<sup>5</sup> Children in Hungary start primary school studies at the age of 6 or 7, thus in the third grade they are 8 or 9 years old, and in grade 8 (when they finish primary school studies) they are around 14 or 15.

Before starting the research, a number of elementary schools were contacted to ensure they would provide help for the research. The whole research was conducted in six elementary schools in Kecskemét, Hungary. Five of them were state schools situated in residential areas, and one was a religious primary school situated in the middle of the town centre. Obviously, differences occurred between the schools regarding their relative prominence and the socio-economic status of the families of children who attend the school, but because these differences have not yet been explored officially they are based only on informal judgements. Since my intention was to include a wide range of children in the investigation, these differences in the schools supported the diversity of data received and helped to create a comprehensive picture of young learners' SRV learning. The school management and the English teachers gave their consent to carry out the research. (The consent form can be seen in Appendix 2.1). Children in all these schools were learning English as a foreign language and had different number of classes a week depending on whether they were specialised in learning English or not. Those who were specialised had 4 or 5 lessons, and who were not had 2 or 3 lessons a week. Anonymity was guaranteed throughout the research. Participants were informed about the primary purpose of data collecting. In the interview parts the participants' parents filled in the consent form (Appendix 2.2) and permitted their children's involvement. Learners' language attainment was not the criterion of selection, thus learners with different language abilities could participate in the research.

### **3.3.2 Making the instruments appropriate to learners' needs**

A central issue in the research was to elicit, assess and analyse young learners' strategic vocabulary learning with the help of instruments which comply with young learners' cognitive and metacognitive competences including mother tongue skills, ability to concentrate, and attention span. Since there is considerable variation in children's ability to report on their thinking and learning (Chamot, 1999), questions or statements were short, presented in simple language and the number of items were in line with the difficulty of the questions. All the instruments used in the research were written in Hungarian, the participants' mother tongue. Before conducting each part of the research, it was of crucial importance to check whether YLs understood the questions and were able to provide adequate answers: therefore, new instruments were subject to piloting.

### 3.3.3 Procedures

Although the procedures for each phase of the research were different, the approach in which the whole investigation was carried out was built around the same principle. Before starting each part of the investigation participants were informed about the purpose and the procedure. While all types of the interviews were conducted by the researcher, data collection with the questionnaires happened in the presence of the language teachers only. The teachers were thoroughly, both in writing and orally, informed about their task in advance. They were given a cover letter and were personally guided on the expected task.

The most important characteristics of the research construct of each phase are presented below. In order to help orientation between the phases and parts of the research Table 3 represents the methodology applied.

*Table 3: Summary of the methods used in the three phases of the research*

Phase I			Phase II		Phase III	
<b>Part 1</b>	Semi-structured interviews	n=27	Focus group interview	n=12	Main study (using the quantitative questionnaire)	n=331
			Structured interviews (creating the quantitative instrument)	n=12		
<b>Part 2</b>	Classroom observation and retrospective interviews	n=19	Pilot study (developing and testing the quantitative questionnaire)	n=80		

#### **Phase I: Eliciting, describing and classifying young learners' strategies used for learning vocabulary in the framework of self-regulated learning behaviour**

The first phase of the research was important for two reasons: primary data was collected, and later phases of the research relied on data from this phase.

As a result of the re-theorization movement of language learning strategies (Dörnyei, 2005), some researchers (Woodrow, 2005; Rose, 2012) have called for moves towards qualitative methods, arguing that they are more appropriate for assessing LLS use because they may lead towards clearer definitions. For this reason, qualitative instruments to measure strategic learning are mostly welcomed. To meet this necessity, in the first phase of the research qualitative data was collected in order to gain preliminary information about young

learners' strategic vocabulary learning and make certain that they were able to provide important and sufficient data for carrying on the research, to build up the research construct, and to clear the ground for collecting quantitative data in the successive research parts.

The first phase of the research consists of two parts. In the first part, semi-structured interviews were conducted to elicit young learners' strategy use and self-regulated vocabulary learning. In the second part, children's learning activity was observed in a classroom setting and life data was collected in order to support the reliability of the interview data and the validity of the qualitative part of the research.

### **Phase I part 1: Semi-structured interviews**

The interviews (n=27) in Phase I were conducted with some very specific goals. The first goal was to find out what strategies YLs use for learning vocabulary and to explore some aspects of self-regulated language learning which were later used in designing an open-ended structured questionnaire. Another goal was to determine whether YLs were capable of being involved in a research project and of reporting assessable information on their language learning. Furthermore, my intention was to clarify the possible directions of the research regarding the basic elements and categories of young learners' strategic vocabulary learning.

In the planning phase, researchers must decide on the number of interviews. When data is collected by this method 'the more the better' principle does not prevail, since the optimal number of interviews should be  $15 \pm 10$ , i.e. between 5 and 25 (Kvale, 1996, p. 102). Since the primary goal of this research was to elicit data that demonstrates particular patterns of young learners' strategic behaviour, it was of crucial importance to interview a number of learners (n=27) divided into three different age groups (3rd and 4th graders, 5th and 6th graders, and 7th and 8th graders). As a result, not only was more data collected, but the results were more detailed to support qualitative evaluation, which made grouping and setting up newer categories possible.

#### ***The goal of semi-structured interviews***

Language learners, including young ones, use a range of strategies for learning vocabulary (Pavičič, 2008). As it has been discussed in the literature review, research has pointed towards a direction of learners' strategies and strategic learning which suggests that besides the utilization of language learning strategies there are other dimensions of strategic thinking

which boost the use of strategies, and subsequently facilitate language learning. These dimensions, as discussed in the literature review, involve motivational and self-motivational strategies, metacognitive thinking, as well as self-regulating control mechanisms that can encourage learners to be strategic. Since strategic learning can be seen as a multifaceted construct constituted from the aforementioned factors, the qualitative research was targeted to explore these areas. Although in recent literature (Dörnyei, 2005) the emphasis shifted to discuss strategic language learning in the framework of self-regulation, there are researchers who are convinced of the importance of learning strategies. Rose (2012) argues for the inclusion of learning strategies in contemporary research by alluding to their complex nature. Dörnyei himself stands for the importance of learning strategies by saying “I have always believed in the existence and significance of learning strategies...” (Dörnyei, 2005, p. 163.). Therefore, besides investigating various factors of strategic learning, I fitted vocabulary learning strategies in the construct and explored all these factors in the framework of self-regulation. Consequently, the following components of strategic vocabulary learning were used as a guide for creating the format to the semi-structured interviews and for analysing the results:

- Attitudes and motivation to learning vocabulary in English were explored and analyzed as an individual group.
- Vocabulary learning was examined in terms of cognitive, memory, lexical processing (LPS) and social strategies.
- Metacognitive behaviour was investigated to find out about plans for learning the language, organizing, and seeking practice opportunities.
- As for self-motivation the following aspects were highlighted: Self-efficacy (difficulties), anxiety, skilfulness, satisfaction, and self-rewarding strategies.
- Young learners’ self-regulating capacity in vocabulary learning was explored in terms of Dörnyei’s model of self-regulation (2001a).

In view of that, the goal of this qualitative research carried out in the form of semi-structured interviews was to explore and categorize the strategies used for learning vocabulary by elementary school children in order to build up the framework of young learners’ self-regulated vocabulary learning in a foreign language context in Hungary.

### ***The advantages of the interview method***

When the primary purpose of research is to explore a relatively new area in second language acquisition, one of the best ways of collecting data is to ask those who are concerned (Dörnyei, 2003). Interviews provide fertile ground to collect primary data on a certain topic. The main advantage of conducting semi-structured interviews with children concerns the personal nature and flexibility of the method. These advantages of the interview method were utilised in the course of data elicitation in this research. On the one hand, the personal feature of data collection method made the interviewees feel the importance of being appointed from the volunteers to take part in an interview and the personal interaction highly contributed to success because they seemed to be proud of sharing their views on their own language learning procedure, and, thus, they all behaved collaboratively. On the other hand, the flexibility of the method, i.e. the interchangeability of questions and the opportunity to reformulate them to a certain extent, ensured comprehensive insight into the focal points. The interviewer provided guidance with the questions asked in a flexible order following the natural sequence of conversation. It proved to be an incentive to raise additional questions in order to gain appropriate replies. The flexibility allowed the interviewer to raise issues in a different way, which is a key to success, since it is not easy for respondents, especially for young ones, to verbalise their thoughts (Schmidt, 1995). Utilising the advantages of this method, the YLs were willing to participate vigorously and were able to present valuable and useful information. The construction of the interviews is described in detail when the instrument is presented.

### ***Validation of the semi-structured qualitative interviews***

In case of a qualitative research design it is vital to establish the main steps of the validation procedure (Prescott, 2011). In planning and preparing for conducting personal interviews McCracken's (1988) proposal served as a basis to ensure the validity of the interview design and, accordingly, a principled procedure was followed when setting up and doing the interviews. McCracken designed a four-step inquiry (1988, p. 29) for conducting interviews. The division of this inquiry resulted in formulating the basic components or methodological stages of the interview, which underpin the validation process of the method. These methodological stages are the following: schematization, planning, conducting interviews, transcription, analysis, validation, and summarizing the research results. The steps of the

validation process followed in the interviews have been described in detail in Hardi (2011a), and only the main steps are outlined here.

The semi-structured formal constraint of the interview design I used fell into line with the thematically organized content. In the schematization phase, literature (Dörnyei, 2001a; Fraser, 1999; Oxford, 1990; Pavičič, 2008; Tseng et al., 2006) was studied in order to become familiar with recent research findings in the field of vocabulary learning strategies and self-regulation. For that reason, the qualitative research was carried out with the intention to elicit data essential to discovering certain patterns of young learners' strategic vocabulary learning.

In the planning phase, I decided on the number of interviews. Since in this research I conducted the semi-structured interviews to elicit information on young learners' strategic behaviour divided them in three age groups, it was essential to ask a relatively great number of participants (n=27). Furthermore, it was important to gain abundant information to be able to classify the data and to formulate strategy groups or categories.

Voluntary participation made pupils ready and motivated to answer questions. The learners involved felt special to be asked about their opinion. The motivational effects of voluntary participation not only assured learners' willingness to respond but contributed to the unproblematic interpretation of the questions. The flexibility of semi-structured interviews ensured rephrasing the questions during the interviews. While conducting the interviews, the interviewer could not only make sense of the responses but was able to find out what the respondents meant by their utterance regarding some ambiguous issues. Since the order of issues was interchangeable, adjusting them to the natural course of conversation was possible. Since the interviews were based on personal interaction between the interviewer and the interviewee, they provided a good opportunity for learners to speak about their own personal matters, strengthening the intimate and relaxed atmosphere in which a kind of confidential relationship could arise between the interviewer and the interviewee. All these contributed considerably to both the efficiency and consistency of data collection.

Transcribing the interviews followed. Research perspectives determine whether particular textual features are emphasised or not. Since the current research focused on gathering factual information, phonological data was not needed, therefore, instead of using a complex sign system I relied on broad transcription. Hence, only dots, commas, question marks, and full stops were marked in the transcriptions. Periods mark some seconds of thinking or a short hesitation, while comma use marks rising intonation. Thus, the transcriptions somewhat preserve the original form of oral utterances in order to maintain the natural flow of language. Moreover, when transcribing I concentrated on the most important

parts and characteristics of the data and on highlighting essential elements which contributed to the analysis of the interviews, and did not transcribe the repetitive parts and subsidiary information that was not essential to the success of the research.

The analysis of the interviews provided ground for setting up categories. Learners' responses on each area of investigation were classified and put into clusters. These clusters were then identified as the main strategy groups that formulate the categories of young learners' vocabulary learning. The similarity and stability of responses, as demonstrated among the results, also contributed to the validity of the method in terms of consistency and stability.

### **Phase I part 2: Collecting data by observation and retrospective interviews**

In this part of the research life data was collected in the course of classroom observation by providing pupils (n=19) with a concrete vocabulary learning task to reflect on with the intention to support the validity of the interview data. Observation is a qualitative form of research method by which the researcher watches, records and takes notes of participants' activities in order to engage in a content-specific situation and achieve life data on the ongoing action. This method is suitable for collecting data on learning activities in a classroom context and can function as an essential supplement of other research methods that are based on participants' self-report and do not take the investigation of a genuine, natural situation as their focal point. The observation in the framework of triangulation can also function as validating the data accessed by other research methods (Szokolszky, 2004, p. 429).

The most important goal of this part of the investigation was to meet pupils in a natural classroom setting and to observe the strategies and self-regulating mechanisms they use to learn vocabulary. The observation was expected to explore strategies which may not be discovered by other means of investigation either because a particular strategy use is beyond the scope of the questions, or because the respondents are not aware of the use of a certain strategy, or fail to notice its existence or manifestation. Therefore, this method functions as a complement of the interview method and contributes to the verification of the interview data.



## **Phase II: Creating and developing a quantitative instrument to research young learners' self-regulated vocabulary learning (young learners' SRV learning)**

In the second phase of the research the main emphasis was on the creation and development of the quantitative instrument which was used in the final phase.

### **Phase II part 1: Collecting data with the structured questionnaire**

In Phase II part 1, first, the structured questionnaire was presented, and its usability was established by a focus group interview (n=12). Focus group interviews (Szokolszky, 2004, p. 466) are a means of qualitative data collection which address a number of participants at the same time on a particular topic, and, thus, create a more natural atmosphere than a one-to-one interview. In this interactive setting, participants feel free to discuss a subject raised by the interviewer. Group discussion produces insights that would be less accessible without communication created in group setting in which listening to others stimulates thinking about and verbalizing a certain issue. In this research, the goal of the focus group interview was not data collection on young learners' strategic behaviour, but to have children respond to the structured questionnaire, whose structure emerged based on the data gained by the personal interviews and classroom observation. The think-aloud protocol was conducted to determine whether the participants understood the questions and to find out if the structured questionnaire truly corresponded to their experience and if they were able to discuss the issues raised. In addition, it was useful in determining whether the formulation of questions made sense to them.

The structured questionnaire was used to collect structured data on young learners' strategic vocabulary learning by the means of interviews in order to get access to pupils' utterances that comprised the statements of the Likert-type rating scale which was used in the last phase of the research. The construction of the rating scale was based on the analysis of the data achieved by structured interviews conducted by the means of the structured questionnaire, i.e. the data was processed by collecting learners' responses on the items and categories of self-regulated vocabulary learning. Afterwards, using learners' utterances regarding each question a four-point Likert-type rating scale was constructed, which was developed and tested in the second part of Phase II to make quantitative data collection possible.

## **Phase II part 2: Developing and testing the quantitative questionnaire**

In the second part of Phase II, in order to ensure the reliability of the quantitative questionnaire, first, it was subjected to initial piloting, i.e. potential participants (n=80) took part in the research to make sure that each question was clear and understandable for them. Afterwards, the instrument was piloted with potential participants to validate the construction and to make sure the quantitative questionnaire worked. The reliability and validity of the questionnaire were assessed by means of descriptive and inferential statistics, and, then, the quantitative questionnaire was revised and improved. The instrument was validated in this phase of the research in order to scrutinize the practicality of its use for assessing the characteristics of young learners' strategic vocabulary learning in the final phase of the research.

## **Phase III: Measuring young learners' SRV learning: Using the quantitative instrument**

The goal of this final phase was to submit the final instrument to research purposes in order to collect information about young learners' strategic vocabulary learning within and between ages (n=331). The rating scale that went through the piloting and developing procedures in order to establish its reliability and validity was used in this final phase to assess young learners' strategic vocabulary learning in a Hungarian context in order to reveal age-related differences in their strategic learning.

## **3.4 Summary**

The primary aim of this dissertation was to get information about young learners' strategic vocabulary learning and to develop a quantitative instrument that measures their self-regulated vocabulary learning. Since the whole investigation was based on the findings of the personal interviews, the validation process was very important and embraced the stages of the research, i.e. the research structure underpinned the developing and validating procedures, which resulted in the final instrument.

In the next three chapters I explain the phases of the research in detail. In each chapter, first I briefly discuss the goal, specify the methodology, and analyse and discuss the results. Moreover, the instruments that were developed in the certain phase are described.

## **CHAPTER 4**

### **PHASE 1: ELICITING AND ANALYSING YOUNG LEARNERS' VOCABULARY LEARNING STRATEGIES AND SELF-REGULATED LANGUAGE LEARNING BEHAVIOUR**

#### **4.1 Phase I part 1: Semi-structured interviews**

##### **Introduction**

In order to be able to describe how children learn vocabulary, the most vital issue is to get insight into their strategic learning behaviour. Young learners' strategic vocabulary learning can go through a certain shift across ages; it can change or even be fossilized. Although these changes are difficult to seize in personal interviews, the data gained by this method can also be used as a starting point for further investigation. In this part, first, the instrument is described, the participants and settings are specified and the procedure is explained. After that, the results are presented and analysed based on the theoretical framework of the research. Finally, the arrangement of young learners' vocabulary learning is outlined. In the first phase of the research I address the first research question: Based on the theoretical framework, what kinds of strategies and self-regulated behavior are reported and demonstrated by young learners in learning vocabulary?

##### **4.1.1 Method**

###### ***Instrument***

The semi-structured interview format, by offering prompts about the most important issues of strategic vocabulary learning, gave pupils a chance to talk freely if they had anything to say about their strategies and vocabulary learning behaviour. Utilising this flexibility, they provided a view on their own way of strategic learning, which made it possible to identify some general patterns and possible directions in their strategy use and self-regulated behaviour.

In order to elicit information on the most important issues, the structure of the interview was reconsidered based on language learning taxonomies (Gunning, 1997; Oxford, 1990) as well as on the theory of motivation and self-regulation in vocabulary learning (Dörnyei, 2001a; Tseng et al., 2006).

The major issues were organized into six groups. First, background information (grade, age, number of classes per week, learning or knowing other foreign languages) was gathered, and then general information about learners' motivation and attitude was addressed. Learners' were asked about their attitude towards the English language and language learning, and their self-confidence, including anxiety and self-efficacy. In the next part, vocabulary learning strategies coinciding with general learning strategies, such as cognitive, memory, social, metacognitive (Oxford, 1990) and lexical processing strategies (Fraser, 1999) were elicited. Another issue targeted learners' metacognitive behaviour, i.e. their planning and organizing activities, and their intention to learn more. Issues on learners' satisfaction with and skilfulness in vocabulary learning were also in the focus, and learners' self-regulatory capacity in vocabulary learning was explored. In this broad framework, participants were given the chance to express their own view on strategic vocabulary learning.

The main topics of the interview can be found in Appendix 3.

### ***Participants and settings***

Twenty-seven children from grades 3 to 8 learning in two different primary schools took part in the research. Twenty-two of them started learning English as a foreign language in grade 3 and had, on average, three classes weekly. Five children started it earlier. Children taking part in the research were equally divided into three major age groups: nine learners were in grades 3 and 4, nine in grades 5 and 6, and another nine in grades 7 and 8. Data was collected in January, 2011, so the youngest learners had been learning the target language for 5 months and the oldest for 6 years on average at the time of data collection in a school setting.

Although participation was voluntary, teachers chose the interviewees from those who had the intention to participate. The main criteria of selection were willingness and talkativeness.

### ***Procedure***

The personal interviews were conducted in Hungarian, the participants' mother tongue during the English lesson which was being held in a separate classroom. The interviews were recorded with the oral consent of respondents, and the written consent of the parents. Before conducting an interview the researcher informed each participant that the interview would be recorded and started only when they agreed to the process. Also, in the processing phase, a consent form (Appendix 2.2) was sent to parents to contribute to using the data their children provided, and only the data with parents' permission was processed.

Conducting an interview took about 10 minutes on average. This time frame was long enough to allow the participants to explain their vocabulary learning strategies, but short enough, so that they were able to maintain attention and concentration.

Right before conducting the interviews, the introduction of the researcher was followed by a short group interview with the purpose of tuning children to the research topic rather than gathering data. Children had the opportunity to discuss common topics in connection with language learning, such as using text books, motivation, how much they like English, etc. After the group interview children were interviewed one by one.

#### **4.1.2 Results and discussion**

The primary goal of interviewing young learners was to elicit the variety of strategies they use when learning vocabulary in a foreign language and – by trying to organize them into categories – to provide a comprehensive view of the strategies applied. Therefore, strategies were identified and grouped after the interviews had been transcribed.

The data yielded in the first phase of the research was promising in both respects. First, it became evident that young children were strategic language learners and they were able to provide valuable information about their language learning process. Moreover, the structure of young learners' self-regulated vocabulary learning was outlined, which served as a key issue in carrying out the whole research project.

Pupils in the interviews reported the use of a number of strategies and, due to the oral interview method, they were free to explain and assess the strategies they used, and they accounted strategies in combination with one another. Although this tendency can be very profitable for the language learner, the jointly reported strategies made the analysis complicated at times. Certain strategies were hard to identify as unique items, even though the research purposes would necessitate their separation. Therefore, the main goal of the analysis was not to separate strategies which were reported to be used in combination, but to try to identify the main features of the strategy use and analysed them accordingly, i.e. some of the extracts represent a mixture of strategies.

As for carrying out the analysis, it was important to highlight that “the boundaries are fuzzy, particularly since learners' sometimes employ more than one strategy at a time” (Oxford, 2001, p. 167). Strategies hardly appear isolated in learners' accounts; rather they emerge in combinations with other strategies. Therefore, when classifying the strategies learners mentioned in the interviews, practical decisions had to be made in a number of cases

to list an utterance in the most characteristic strategy group. At times, joint appearance is indicated in the discussion, since this feature of strategy use has a positive effect on vocabulary acquisition and can provide a more fertile ground for the investigation of vocabulary learning strategies than the analysis of individual vocabulary learning strategies would (Gu & Johnson, 1996; Nikolov, 1999a, 2003b).

While analysing the interviews I concentrated on the particular strategies used by a language learner, instead of presenting the profile of each participant's strategy use. Although the decision I made between these two possible ways of analysing resulted in transcribing only the most important parts of the interviews, by concentrating on strategies – since each interview was analysed as a whole – a complex picture of the individuals' strategy profile also emerged. This let me conclude that there were learners who employed a variety of strategies consciously, and there were learners who seemed not to be strategic at all. Those who belonged to the first group, for example a girl in grade 3 in interview 1 and another in interview 13, reported using a number of strategies for learning vocabulary. I listed among the examples fifteen different strategies used by the most strategic girl, while from the less strategic learners I could note only one or two examples. Although I was interested in collecting data on the wide range of strategies and not on which ones were the most frequent, I found this information important to provide an overall view of learners' strategies.

In the next section, vocabulary learning strategies are exemplified. The classification of VLSs was based primarily on the main categories of Oxford's (1990) language learning taxonomy, since the VLSs used by YLs taking part in the interviews highly overlap with general language learning strategies such as cognitive, memory, social, and metacognitive strategies. Since participants reported a wide range of strategies for learning vocabulary I noted every strategy, not just the most frequently mentioned ones. Thus, a variety of strategies were specified and illustrated by the examples cited in the analyses. Then, strategy use was put in a larger context and self-regulated vocabulary learning was illustrated including self-motivation, metacognition, and self-regulating capacity. Participants' awareness in strategy use and age-related differences are also demonstrated.

In order to provide guidance among the strategies which emerged in the interviews, Table 4 illustrates each item in the order of their arrangement in the text.

Table 4: The categories and subcategories which emerged from the personal interviews

CATEGORIES AND SUBCATEGORIES	EXCERPTS
<b>Vocabulary learning strategies</b>	
Cognitive strategies	
Verbal repetition	1, 2, 3
<i>Verbal repetition with family members</i>	4, 5
<i>Verbal repetition with the teacher at school</i>	6
Visual repetition	7, 8
Written repetition	9, 10, 11
Using mechanical techniques	12, 13
Memory strategies	
Grouping	14, 15, 16
Using mental pegs	18, 19, 20, 21, 22, 23, 24
Using imagery	
<i>Mental representation</i>	25
<i>Visual representation</i>	26, 27
Lexical inference	28, 29
Metacognitive strategies	
Seeking practice opportunities	30, 31
Planning	32, 33
Dictionary use	34, 35, 36
Social strategies	
Parents' or family members' role	37, 4, 5
<b>Self-regulating capacity in vocabulary learning</b>	
Commitment control strategies	38
Metacognitive control strategies	39
Satiation control strategies	40
Environmental control strategies	41
<b>Attitude and motivation to learning English vocabulary</b>	
Intrinsic motivation	42
Extrinsic motivation	43
Instrumental motivation	44, 45, 46, 47
Integrative motivation	48
<b>Self-motivational strategies</b>	
Language learning anxiety	49, 50, 51, 52, 53
Self-efficacy	54, 55, 56, 57
Skilfulness	58
Satisfaction	59, 60, 61, 62, 63
Self-rewarding	64, 65, 66

### Vocabulary learning strategies

First, vocabulary learning strategies, for example, cognitive, memory, metacognitive, and social strategies are exemplified.

*Cognitive strategies* refer to language transformation or processing. Cognitive and memory strategies are included in Oxford's (1990) group of direct strategies which operate specifically on the L2 material in order to facilitate its storage and recall from memory. However, Pavičič (2008) argues that the distinction between cognitive and memory strategies in the case of vocabulary learning seems difficult to maintain, since both groups of strategies are used to

recall words through language manipulation. The distinction, as Pavičič (2008, p. 68) continues, can be clarified by relying on Purpura's (1994, cited in Schmitt, 1997, p. 201) division of storing and memory strategies. Although this kind of distinction is not entirely satisfactory either, these categories can be applied as working concepts for cognitive and memory strategies in this dissertation. Accordingly, cognitive strategies can be used for strategies not evidently linked to mental manipulation (e.g. repeating, using mechanical means), while memory strategies are used in connection with mnemonic strategies, such as associating, linking, and using imagery.

*Repetition* entails repeating words verbally, or by reading, or in writing, following the natural sequence of a certain learning route. If the unknown words, for instance, are written in the vocabulary, pupils memorize them by reading them several times.

*Excerpt 1: Verbal repetition (Interview 13, grade 4, female)*

‘Hát... , otthon elmondom magamban sokszor...

[Well..., I tell it to myself many times at home...]

This example illustrates strategy use in an independent setting, a learning environment that does not rely on the physical presence of a teacher (Hurd & Lewis, 2008). This focus needs to be emphasised since learners gain knowledge of vocabulary in different settings. The two major settings in foreign language contexts are the institutional and home settings. While an independent setting can be defined by the absence of the teacher, in a home setting, the main participants of language use are parents and other members of the family. However, in both settings the contribution of other people is important. In an independent setting teachers' beliefs on vocabulary learning are also reflected since they encourage children to practice and learn new words out-of-school, they promote strategies by setting tasks, and, thus, teaching techniques impinge on learning in individual setting.

When learning occurs alone, without the assistance of other people, learners must employ further strategies for learning; they have to be intrinsically motivated (see Excerpt 42) and should use certain self-regulating techniques.

*Excerpt 2: Verbal repetition (Interview 8, grade 4, male)*

‘A jelentését is megjegyzem. Sokszor úgy elmondom, hogy pl. „apple”

– „alma”, „apple” – „alma”, „apple” – „alma”...

[I memorize its meaning too. I repeat several times that, for example,

‘apple’ – ‘alma’, ‘apple’ – ‘alma’, ‘apple’ – ‘alma’...]



Excerpt 2 shows the application of L1 on the L2 material. The exploitation of word translation and its repetition create cross-linguistic mental pegs which can reinforce the learning process. Without a context words can be memorised by repetition or using mental representations.

*Excerpt 3: Verbal repetition (Interview 8, grade 4, male)*

‘Hmm..., olvasom... és akkor... mondjuk... őőő.... egyszer elolvasom őket, megtanulom, és akkor... őőő... letakaram egy papírral... a magyar jelentését, és akkor nézem... hogy az mit, mondom hogy... ezt az angol szót... és akkor mondom utána a jelentését és akkor, ha nem tudok egyet, akkor azt sokszor elmondom még magamban, és hogy ha... és amiket nem tudok azt még tanulás után még egyszer átismétlem, hogy mit jelent.

[Hmm..., I’m reading it... and then... let’s say... once I read them, learn them, and then... hmm... well... cover it with a piece of paper... its Hungarian meaning, and then I look at... what, say that... the English word... then I say its meaning and then, if I don’t know one, then I repeat it several more times to myself, and if... and those I haven’t learnt I will repeat them once more after learning, their meaning.]’

Excerpt 3 shows repetition with using mechanical manipulation on language with a piece of paper that helps to conceal the L1 meaning. Translation plays an important part in this strategy use as well, since words are learnt with their Hungarian meaning instead of putting them in a meaningful context.

*Excerpt 4: Verbal repetition with family members*

*(Interview 1, grade 3, female)*

‘Anyukámmal néha össze szoktunk ülni és akkor, amit most tanultunk innen is szokott kérdezgetni, szótárból, és akkor én mondom angolul, ő meg magyarul.

[I get together with my mom and what we have learnt she asks from the vocabulary here and I say words in English, and she says them in Hungarian.]’

*Excerpt 5: Verbal repetition with family members*

*(Interview 2, grade 3, female)*

‘Hát úgy, hogy szokta kérdezni, hogy pl. ő... madár és akkor mondom angolul.

Kérdező: Fordítva is szoktátok?

Tanuló: Hát..., nem, anya németet tanít.

[Well, she asks that for example, ohm... bird and then I say it in English.

Interviewer: Do you do it the other way round?

Interviewee: Well..., no, mom teaches German.]’

These examples are typical in my database. The parents do not speak foreign languages, or speak a different foreign language like the mother in Excerpt 5, but they do help their children to learn English vocabulary. This can be the reason why learners are encouraged by their parents to say the word in the target language, while parents rely only on their mother tongue. The advantage of the application of this strategy can be described by the supportive social environment, but the disadvantage is in the lack of adequate assistance, for example, in pronunciation and in the use of textual features.

*Excerpt 6: Verbal repetition with the teacher at school*

*(Interview 1, grade 3, female)*

‘Ha új szavakat tanulunk Gabi nénivel, ismételjük utána, ha úgy látja, hogy az osztály többségének még nem annyira megy, akkor még jobban ismétелgetjük.

[If we learn new words with the teacher, we repeat them after her, and if she sees that the most of the class do not manage it, then we repeat them more and more.]’

This example shows vocabulary learning in a Hungarian school context where new words are usually repeated several times together with and/or after the teacher. This can also be an example for the infiltration of teaching strategies into learning strategies, since this kind of school practice can reinforce the use of repetition in individual setting, and that the teaching technique is highly reflected in learners’ language learning (Pavičič, 2008). However, learners, especially when starting to learn a new language, employ simple strategies, as opposed to complex and more refined ones, which are either brought from their first or second language learning experience or consciously learnt in the learning process in the interaction with teachers in school context.

The following excerpts show *visual repetition* and call for the importance of visualisation in language learning. This strategy, as well as verbal repetition, is closely related to learning styles whenever individual language learning is taken into consideration (Kontra, 2004). Language learning styles are general approaches to language learning (Cohen, 2003), which can be characterised by several dichotomous styles of functioning. These styles of functioning, however, can be differentiated, such as being visual, auditory, or hands-on. More visual learners prefer learning by visually representing or reading the learning material. Auditory learners, on the contrary, prefer learning by oral performances and oral explanations, while hands-on learning style evokes kinaesthetic actions in order to acquire the language. Since language learning strategies can vary on a large continuum, there must be strategies that coincide with each learning style. In other words, auditory learners may prefer oral repetition

as a learning strategy, visual learners may preferably utilize visual strategies in language learning, hands-on learners may prefer mechanical techniques. Unfortunately there is no adequate research on the encounter of learner styles and strategies, but the study of Kontra (2004) mentions these language learning features appearing parallel to each other.

*Excerpt 7: Visual repetition (Interview 1, grade 3, female)*

‘Én nagyon sokat szoktam tanulni az angolt, mert mindig átolvasom. Sokat szoktam tanulni, így mindig megjegyzem.  
[I learn English a lot, I always read it through. I learn a lot, so I always memorize words.]’

*Excerpt 8: Visual repetition (Interview 2, grade 3, female)*

‘Nézegetni szoktam a füzetet... Először mindig megtanuljuk az iskolában... anya kérdi magyarul, én mondom angolul, csak ebben a sorrendben, mert anya csak németül tud.  
[I usually look at the vocabulary book... First we learn it at school... my mom asks me in Hungarian, I say it in English. Always in this order, because mom speaks German only.]’

Although this example (Excerpt 8) is listed among the strategies of visual repetition, it illustrates a more complex use of strategies in different settings including oral practise and social strategy use in interaction with a family member. Vocabulary learning in a foreign language context normally starts in school setting with the instruction of the language teacher, and continues at home where learners can rely on the assistance given by their family members. This pupil differentiates between learning and practicing the unknown words. By learning she means writing the meaning of the word in the vocabulary, and by practising she understands the memorization of the meaning with the help of reading it several times. This view reflects the Discovery/Consolidation distinction in Schmitt’s (1997) taxonomy.

*Written repetition* is a kind of mechanical strategy in the sense that language learners write down or copy the lexical items repetitively.

*Excerpt 9: Written repetition (Interview 1, grade 3, female)*

‘Igen, többször leírom, mert pl. ha egy verset tanulunk, akkor pl. leírtuk, hogy a „monkey” az majmot jelent, de hogyha tanuljuk, hogy „five little monkeys” akkor megint leírjuk, mert vannak olyan szavak a versben amiket még nem tanultunk, de a „monkey”-t már tanultunk, de azt akkor még egyszer leírjuk.  
[Yes, I write words a couple of times, because if, for example we learn a rhyme, then we have written that monkey means ‘majom’, but if we learn that ‘five little monkeys’, then we write it again, because there are words in the rhyme we haven’t learnt, although we have learnt ‘monkey’, we write it down once more.]’

When learners copy English words they practice the orthographical form, and writing down words several times helps them memorize the meaning and the form. The strategy of writing words into the vocabulary book as many times as they occur in a new context or form can reinforce the acquisition of words. This teaching technique, however, can either be based on the belief that learners do not know what they have not been taught or function as a conscious incentive for the repetition of vocabulary. Since this kind of strategy involves repetition of words as they occur in the production of the text, it functions, in effect, as a spaced repetition, which has a positive outcome in vocabulary learning (Nation, 2001, p. 76).

Excerpt 10 illustrates the infiltration of a teaching technique into learning strategy use. Although it indicates the importance of written repetition as a strategy in language learning, also shows a negative aspect of the use of rote learning in writing. As the excerpt illustrates, obviously not all the aspects of language use have been learnt successfully. The respondent claims that the strategy helped her memorize short sentences. However, this excerpt enlightens the malfunction of one of her two utterances, since there is ambiguity between the meaning and form of the grammatical structure. The learner's explanation makes it clear that the phrase 'What do you do?' is meant by her to have the progressive meaning 'What are you doing?'. This excerpt illustrates also learning chunks of language as lexical units. This is important to notice in two respects. First, learning lexical chunks highly contributes to fluency by facilitating the automatization process (Schmitt, 2004; Segalowitz, 2007). Second, in this dissertation I discuss learning vocabulary and I see it as learning words and more complex lexical units, chunks, since these approaches define the way vocabulary learning is materialized.

*Excerpt 10: Written repetition (Interview 13, grade 4, female)*

‘Volt, hogy nem tudtam, hogy „What’s your name?”, és hússzor le kellett írnom és azóta is tudom, meg „What do you do?”, és ha látom, hogy mit csinálsz, akkor megjegyzem.

[It has happened that I did not know ‘What’s your name?’ then I had to write it down 20 times, and I have known it since then, and ‘What do you do’ and if I can see what you are doing then I’ll I memorise it.]’

The focus of written repetition is on the orthographic feature of the lexical item as it is shown in Excerpt 11. In this case the strategy of written repetition may help in memorizing the written form, but as the previous example illustrated it can not contribute to learning the accurate meaning of the word or utterance.

*Excerpt 11: Written repetition (Interview 8, grade 4, female)*

‘Leírok egy szót, egy egész sorba úgy ötször vagy hatszor és akkor...  
őőő... megjegyzem, hogy hogy kell leírni... a helyesírását...  
[I write down a word, in a whole line five or six times... well... I  
memorize how to write it... its spelling.]’

Excerpts 12 and 13 represent the using of *mechanical techniques*. Learners of the hands-on learning style prefer using kinaesthetic actions in order to acquire the language (Cohen, 2003). These actions in vocabulary learning involve the use of mechanical techniques by which learners draw on different signifying strategies, such as framing, underlining, dotting, etc. Since the borderline between learning strategies is rather fuzzy, these can be considered as visual techniques, while written repetition can be seen as a mechanical strategy.

*Excerpt 12: Using mechanical techniques*

*(Interview 14, grade 4, female)*

‘Szoktam, hogy amiket már tudok, azt így bekeretezem és akkor ott a  
fölötte, meg alatta levőket még többször így átismételem.  
[I usually do: what I know, I frame it like this and then I repeat those  
above and below several times.]’

*Excerpt 13: Using mechanical techniques*

*(Interview 11, grade 8, female)*

‘Úgy csinálom.... mondta a tanár, hogy hogy csináljam....hogyan  
őőő... gyo., sokszor átolvasom,... párszor, és akkor letakarom az  
egyiket, és akkor őőő amelyiket nem tudom azt, ... odarakok egy kicsi  
fekete pontot, vagy valami pontot, és akkor... és akkor... végig  
megyek újra, tehát átolvasom... azokat a szavakat jobban, újból  
elmondom 5-ször, hogy mit tudom én, „hungry, hungry, hungry,  
hungry, hungry”... és akkor... ő... elmondom.... el szoktam mondani  
a magyart, hogyha nem tudom, és akkor... és akkor ő... újra  
végigmegyek az egészen... és akkor csak azokat mondom el, amelyik  
mellett van kicsi fekete pötty, csak ezt nem mindig csinálom meg...

Kérdező: Miért nem?

Tanuló: Mert nincs időm. Meg kedvem sem... Régebben nem így  
tanultam...

Kérdező: Régebben hogy tanultál?

Tanuló: Csak letakartam, és akkor... csak így nem volt régebben  
pontocska, hanem csak úgy... Régebben csak olvastam, és olvastam  
aztán majd lesz valami...

[I do as... the teacher said how to do this... that well... quic..., I read  
it through a lot of... several times, and then I cover one, and then,  
well, the one I don’t know..., I put a little black point next to it, or a  
kind of point, and then... and then I do it again, I read it through again,  
and those words better, and again say them 5 times, for example,  
‘hungry, hungry, hungry, hungry, hungry’ and then... I say the  
Hungarian, if I don’t know, then..., well, I go through on it all..., and I

say only those next to which there is a little black point. I don't always do it.

Interviewer: Why not?

Interviewee: Because I don't have time. And I don't feel like it.... I didn't learn like this some time ago...

Interviewer: How did you learn some time ago?

Interviewee: I only covered it, and then... only there were no dots, just like that... Some time ago I only read it and read it and then something should happen...]

The above examples (Excerpts 12 and 13) illustrate how mechanical techniques are employed and develop in the course of language learning. Although the learners may feel the importance of using this strategy, they do not always employ it due to a lack of time and energy as reported in Excerpt 13. This implies that although the use of mechanical techniques does not require a particular cognitive action, a certain kind of effort must be taken to apply these strategies effectively. The learners' reporting how this strategy was used suggests that more complex strategies, such as marking words, require more effort on the part of the language learner, which restricts their use.

**Memory strategies** involve relating new words to some previously learned knowledge (Oxford, 1990). This strategy includes 'creating mental linkages', 'applying images and sounds', 'reviewing well', and 'employing action'. Its subcategories involve, for example, 'using imagery' or 'grouping'.

*Grouping* means organizing lexical units in a logical manner to facilitate vocabulary learning.

*Excerpt 14: Grouping (Interview 1, grade 3, female)*

'Sok szót tanultunk meg karácsonyhoz kapcsolódóan, például a karácsonyi dolgokat úgy egybe tanultuk, pl. hogy „angyal” és „karácsonyfa”.

[We have learnt a lot of words in connection with Christmas, for example, we learnt Christmas things together, e.g. 'angel' and 'Christmas tree'.]

*Excerpt 15: Grouping (Interview 1, grade 3, female)*

'Külön írtuk a számokat, meg az állatokat, de azután össze csoportosítottuk. Én úgy tanulom meg, hogy a füzetből sorba, de anyukám összevissza kérdez. Van, hogy az összes állatot kikérdezi, de volt már olyan esetem, hogy összevissza tanultam ő meg sorba kérdezte.

[We wrote the numbers and animals individually, but then we put them together. I learn from the exercise book in order, but my mom asks

them randomly. Sometimes she quizzes me on all the animals, but it has happened that I learnt words randomly, and she asked them in order.}]’

Grouping words is a teacher’s teaching technique modelling a learning strategy. It is employed in two different ways in these examples. The example of speaking about Christmas illustrates gathering words in connection with a certain topic, while Excerpt 15 describes grouping as made up of previously learnt words. Excerpt 14 informs us about classifying words with the intention of encouraging learning of lexical items at a time in connection with one another, while Excerpt 15 highlights how this strategy serves collecting already known vocabulary under one subject matter. The learner in the second example reports learning the words together, though either in the set order or randomly, which also demonstrates the mother’s modelling a new strategy. These examples show how a teaching technique is utilised in language learning. The next example (Excerpt 16) illustrates the way of grouping.

*Excerpt 16: Grouping (Interview 10, grade 5, male)*

‘Kérdező: Szoktál néha csoportosítani?’

Tanuló: Néha, így állatok, meg élettelen tárgyak...

[Interviewer: Do you sometimes group words?’

Interviewee: Sometimes, for example animals, and inanimate things...}]’

The learner in Excerpt 17 mentions cognates. Although it seems not to be a deliberate action to write cognates together, this learner lists a pair as an example, so this strategy must have helped her to memorize the meaning. The way she reflects on the learning of words demonstrates metacognitive understanding of vocabulary learning.

*Excerpt 17: Grouping: cognates – metalinguistic strategy  
(Interview 1, grade 3, female)*

‘Van mikor leírtuk a számokat..., meg volt mikor külön írtuk pl. az állatokat, de utána összecsoportosítottuk, mert őőő..., lehetett mondani hogy milyen állatot tanuljunk meg és akkor azokat leírtuk, hogy például „delfin” és akkor „dolphin” és akkor így könnyű.

[We have written numbers..., and once we wrote separately, for example, animals but after that we grouped them again, because, well..., we could say what animal to learn and then we wrote them down, for example ‘delfin’ and then ‘dolphin’ and it’s easy like this.}]’

*Mental pegs* facilitate memorizing vocabulary by mentally connecting meaning to different language items or language features by associations, and, thus, can belong to the subgroup of ‘creating mental linkages’ in Oxford’s classification (1990). Cohen and Aphek (1981) found

that words which are learned through association, such as is seen in Excerpts 18–24, are more successfully retained one month later than words which are not learned in this manner.

Excerpts 18–24 show a number of ways learners connect meaning to already known L1 or L2 items in order to memorize meaning.

*Excerpt 18: Using mental pegs (Interview 1, grade 3, female)*

‘Gabi néni meg tudja mondani, hogy például a „triangel”-re úgy kell emlékezni, hogy háromszög, hogy benne van a „tri”, mert van például az osztályunkban, aki összekeveri a „rectangle”-lél.

[The teacher can say, for example, that the ‘triangle’ must be memorized as ‘háromszög’, i.e. there is ‘tri’ in it, because there are some in our class who mistake it for rectangle.]’

Excerpt 18 is an example of how strategy training works in the English classroom. The teacher teaches a new strategy that is utilized in order to memorize language items difficult to learn. The strategy applied in Excerpt 18 is based on analysing words, such as tri + angle is triangle. Using mental pegs help learners memorize words with the help of connecting meaning to already known things. Instruction should draw learners’ attention to how to use particular strategies and be effective in the case when learners try to make use of the taught strategy.

*Excerpt 19: Using mental pegs – metacognitive strategy  
(Interview 15, grade 4, female)*

‘...és amiket meg nem tudok, akkor segít apa abban, hogy... például „golden cockatoo” és akkor..... apa mondja, hogy, hogy... onnan jusson eszembe, hogy „golden rertriever” meg ilyenek, és akkor, hogy jusson eszembe valamiről, így hozzá hasonlítja.

[...and what I haven’t learnt yet, daddy helps me that..., for example ‘golden cockatoo’ and then... daddy tells how... I should remember that ‘golden retriever’ and so on, and then, it should come to mind about something, he compares it to it.]’

Phrases with distinctive meanings whose first part is the same may help in memorizing the new word by mentally creating links between unknown parts with the help of the known unit. This strategy has been suggested by the father of the language learner, and, thus, it illustrates social strategy use. It is also an example of a teaching technique that encourages the learner to think about the language; therefore it functions as a metacognitive strategy. Excerpt 20 is another example for using mental pegs, in which the beginning of English words stimulates the word association:



*Excerpt 20: Using mental pegs (Interview 6, grade 7, female)*

‘Valahogy megpróbálom társítani, hogy valamelyik szóhoz hasonlít... Valamelyik angol szóhoz..., leírásban, pl. ha a két szó eleje egyforma és akkor... például „student” és „street”, és akkor... „st”.

[I try to connect it somehow, which word it is similar to... which English word..., in writing, for example if the beginning of the two words are the same then... for example ‘student’ and ‘street’ and then... ‘st’.]

The learner in Excerpt 21 uses a Hungarian word as a mental peg that rhymes with the English one, and which is the same as the English word read backwards.

*Excerpt 21: Using mental pegs (Interview 18, grade 5, male)*

‘Hát..., így a kutyát például úgy tudom megjegyezni, hogy isten akkor „god” és akkor visszafelé „dog” és akkor jobban tudom...

[Well..., for example, I can memorize the word dog that ‘isten’ is god and then backwards it is ‘dog’, and it is easier for me...]

Similarly, new words can be linked to L2 words which the learner has already learnt (Schmitt, 1997, p. 212). In Excerpts 22 and 23 the word association involves ‘sense relationship’ between the words. In Excerpt 22 this relation reflects coordination, which is based on collocation, and in Excerpt 23 on synonymy.

*Excerpt 22: Using mental pegs (Interview 22, grade 8, female)*

‘Például, ha meg akarom jegyezni azt, hogy sikeres – „successful” akkor például, hozzákötöm az „exam-hoz” a vizsgához és akkor meg tudom jegyezni. Mint sikeres vizsga...

[For example, if I want to memorize that ‘sikeres’ – successful, then I, for example, connect it to ‘exam’, and then I can memorize it. Like successful exam...]

*Excerpt 23: Using mental pegs (Interview 23, grade 8, male)*

‘Tanuló: Hát hogyha, például, van egy szó, amit már hallottam, hogy ugyanaz a jelentése, akkor megkeresem a másikat is és akkor..., úgy az a kettő megmarad nekem.

Kérdező: Tudnál példát mondani?

Tanuló: Hát..., „okos” – „clever” és.... Volt még egy másik jelentése is, de az nem jut az eszembe...

Kérdező: „Smart”?

Tanuló: Igen, igen.

[Interviewee: Well, if, for example, there is a word I have heard, and it has got the same meaning, well, then I find the other one as well, and then..., the two will stick.

Interviewer: Can you say an example?

Interviewee: Well..., ‘okos’ – ‘clever’ and... It had another meaning too, but I can’t remember...

Interviewer: 'Smart'?  
Interviewee: Yes, yes.].'

In Excerpt 24 the mental connection does not involve 'sense relation' to an L2 word, but is based on phonological association with an L1 word. The rhyme patterns of the English and Hungarian words are similar, which create the link between the words.

*Excerpt 24: Using mental pegs (Interview 12, grade 8, female)*

'Van olyan ami, például, valami magyar szóhoz hasonló kiejtés, akkor ahhoz kötöm... Hát..., például, van olyan szó, hogy „purple” és akkor „pörkölt”.

[There is, for example, that is somewhat similar to the pronunciation of the Hungarian word, then I connect it to that one... Hmm..., for example, there is a word that 'purple' and then it is 'pörkölt {stew}'].']

When learners use mental pegs they use word associations and connect meaning or form to already known words or phrases and to L1, such as *triangle – tri*, *student – street*, *golden cockatoo – golden retriever*, *successful – exam*, *clever – smart*, *god – dog*, *purple – pörkölt*. These examples show a number of forms of word association, such as using some letters of new words, using a part of a compound word, creating associations, using synonyms, reverse word order, and employ similarities in cross-language pronunciation. All these examples represent a high degree of complexity in the mental activity on the part of the language learners and demonstrate metacognition. Since strategic knowledge is a constituent of metacognitive knowledge (Flavell, 1979) these examples also draw the attention to the importance of metacognition. As for strategy use, the depth of processing can lead to successful vocabulary learning (Macaro, 2001).

As the next examples (Excerpts 25 and 25) indicate, learners *use imagery*, i.e. they can employ their imagination by mentally or visually representing things. In these examples mental representation involves envisioning images in connection with the vocabulary, while visual representation means the recall of pictures which were utilized to facilitate learning.

*Excerpt 25: Mental representation (Interview 9, grade 5, female)*

'Igen, el szoktam úgy képzelni, hogy ez most mi lehet, és ha tudom, akkor is elképzelem. Meg hogy olvassuk azokat a szövegeket és mondjuk nem szabad kinyitni a könyvet, akkor is elképzelem, hogy... mi zajlik... ott a könyvben. Cselekvést is szoktam, főleg a párbeszédeknel..., de a tárgyakat is... szoktam. Meg hogy van az, hogy pl. „Nekem van egy kutyám”, akkor elképzelem, hogy van ott egy személy, és neki van egy kutyája.

[Yes, I imagine what it can be, and if I know it, I imagine it as well. And we are reading those texts and, let's say, we are not allowed to open the book, I also imagine... what is happening... there in the book. I also imagine activities, especially in case of dialogues..., but I also imagine objects... And what is for example, 'I have got a dog' and then I imagine that there is a person and he/she has got a dog.]'

Using imagination is a strategy that can greatly facilitate language learning, since mentally representing words is a complex strategy which involves pictorial representation of actions and movements. Complex strategies when employed consciously by the language learner tend to contribute significantly to language knowledge (Macaro, 2001; Oxford & Scarcella, 1994).

*Excerpt 26: Visual representation: pictures (Interview 2, grade 3, female)*  
'Én azért jobban szeretem az olyan könyveket, amikben van kép.  
[I prefer books with pictures.]'

The girl in this example emphasises the use of pictures for language learning. A number of studies (Gu, 2003; Hardi, 2010a; Schmitt, 2008; Sökmen, 1997) have pointed out the importance of using pictorial representations in language learning. Pictures facilitate language learning by providing a meaningful context, and visual effects create mental links between real objects and events which are clues to remembering lexical units.

*Excerpt 27: Visual representation: pictures (Interview 9, grade 5, female)*  
'Meg ott a szótárban is vannak mellé ilyen gyerekrajzok, és úgy könnyebben meg tudom érteni, mondjuk, hogy például, eloltja a tüzet, és ott le van rajzolva, hogy a tűzoltó eloltja a tüzet. Tehát, hogyha nem jut eszembe a szó, akkor visszagondolok a képre, és akkor tudom, hogy az mégis az.  
[And in the dictionary, there are children's drawings, and they make it easier for me to understand that, for example, 'he is extinguishing fire', and it is drawn that the fireman is extinguishing the fire. So if I don't remember a word I think about what was in the picture and I know it was what I thought.]'

The importance of visual representation in language learning is due to learners' ability to visualize actions, portrays or even written language elements that can be recalled later when needed. Visual aids through creating imaginative representations in mind help learners to understand and strengthen meaning, and, thus, they facilitate word retention. Therefore, as Excerpts 26 and 27 illustrate, pictures have a very important role in learning vocabulary (Wright, 1989).

The literature on vocabulary learning strategies (Fraser, 1999; Paribakht & Wesche, 1999; Qian, 2004) discusses *lexical inference* as a lexical processing strategy (LPS). This strategy group also includes *dictionary use* and *ignoring*. Although, relying on the findings of these studies, ignoring unknown words while reading does not facilitate vocabulary learning, the combined use of lexical inference and dictionary use highly contributes to the success of learning new words. Nevertheless, since the focus is on individual strategy use in this research, their separate representation is necessary for practical reasons. Lexical inference focuses principally on meaning, which serves as a clue for understanding.

*Excerpt 28: Lexical inference (Interview 1, grade 3, female)*

‘Van olyan könyve anyukámnak, amiben csupa angol betűk vannak, meg a gépen is, meg a zenék is maga angol. Meg a nevek is angol a zenében és akkor ki tudom olvasni, hogy a zene címe például „angyal”, és akkor ki tudom következtetni, és akkor nagyjából tudom, hogy mit énekelnek a zenében.

[My mom has got a book with English letters only, and on the computer, and the music itself is English, too. And the names are English too in the music and then I can read that the title of the music is, for example ‘angel’, and then I can deduce and I know it more or less what is sung in the music.]’

Excerpt 28 is a good example of working out the meaning from the context based on a key word. With the help of the key word the learner reports to construct the meaning of a larger unit in the text. Although she speaks about the use of a key word whose meaning is already known to her, she does not describe the process in which she uses the word as a source for understanding the whole text. Inference, as described in this example, is based on the meaning of the key word rather than its form.

*Excerpt 29: Lexical inference (Interview 9, grade 5, female)*

‘Van ugye a mondatnak többféle szava és úgy kilógik az, hogy az mit is jelenthet.

[A sentence has a lot of kinds of words, and I work it out somehow, what it may mean.]’

The learner here suggests she infers the meaning from context, i.e. using either grammar or lexical features to understand the meaning of an unknown word. The strategy of inferring meaning from context relies on the ability of inductive reasoning (Holland, Holyoak, Nisbett, & Thagard, 1989).

In my database only a few cases of lexical inference were found probably because YLs do not use English in realistic context but mainly in the context of school exercises, which do

not seem to require the creative effort necessary for strategic vocabulary learning. Teachers should realize this need and integrate tasks in the curriculum, which encourage learners to use the language in a creative way.

*Metacognitive strategies* seem to determine the quality of language learning. Nyikos and Fan when listing pedagogical implications of strategy use claim that “the combination of metacognitive and specific vocabulary learning strategies seems to work better than either in isolation” (2007, p. 273). This suggests that the use of any strategy must be complemented by a certain degree of metacognitive awareness, especially in the case of YLs, or else language learning becomes much less effective. Metacognition embraces strategies that only indirectly contribute to language learning, but their absence may result in lower level of effectiveness. Metacognitive strategies, for example, in Oxford’s (1990) taxonomy involve centering, arranging, planning, and evaluating learning. Other constituents of metacognitive learning are, for example, analysing, organizing, and monitoring. Metacognition also functions as a constituent of self-regulated behaviour whose importance in language learning has been highlighted in recent literature (Dörnyei, 2005; Tseng et al., 2006).

Under the heading of metacognitive strategies, here, the strategy of seeking practice opportunities, planning, and dictionary use are exemplified. Dictionary use can be seen as a strategy of seeking practice opportunities, since it is a purposeful action to discover language. Other strategies that undoubtedly involve a higher level of metacognitive thinking are listed in the groups of cognitive and memory strategies. The strategies listed here are reflections on one’s own and others’ language learning.

*Seeking practice opportunities* in the following examples refer mainly to pupils’ out-of-school language learning.

*Excerpt 30: Seeking practice opportunities:*

*English songs and dictionary use (Interview 14, grade 4, female)*

‘Zenéket szoktam sűrűn hallgatni. És akkor, ahogy tanulok ilyen szavakat {új szavakat}, akkor kikeresem.

[I often listen to some music. And then, when I’m learning words like this {new words} I look them up. ]’

Excerpt 30 reports on seeking practice opportunities, which belongs to the subgroup of arranging and planning language learning in Oxford’s taxonomy (1990). This strategy can function as a very important incentive of strategic language learning because it motivates not only the particular action, but the whole language acquisition process.

Since a huge amount of popular music is written in English, songs provide a rich background for language learning. Listening to songs not only improves listening skills and vocabulary, but functions as an inexhaustible source of motivation.

*Excerpt 31: Seeking practice opportunities: computer games (Interview 17, grade 4, male)*

‘A számítógépes játékok, ott angolul szokták írni, mondjuk abból tudok párat. Ha a játékban ott van, hogy például „help”, akkor az valami segítség félét jelent. Hát, én sejtettem, meg tudtam is..., meg megkérdeztem...

[Computer games, they are written in English, I would say I know some { words} from them. If it is in the game, for example ‘help’, then it means something like helping. Well, I suspected it, and I also knew it..., and I also asked it...]

Another fertile area of language learning is the use of computers. Computer games are extremely popular with young children and their regular use can improve language learning. The boy in this example (Excerpt 31) tells how he inferred the meaning of ‘help’ from context and how he consolidated it. The combined use of strategies is well illustrated in this example. Although this strategy is listed as a metacognitive strategy of ‘seeking practice opportunities’, it also reports the use of inference, which is a lexical processing strategy, and the learner asks somebody, which is a social strategy.

Besides the out-of-school practice opportunities exemplified above, some learners also reported their intention to read books in English. Watching films with English subtitles was mentioned by one participant. The interview conducted with her will be analysed in a case study at the end of Phase 1 part 1 (section 4.1.5). However, I think that YLs do watch films in the foreign language, but may not be aware of it as a vocabulary learning strategy, and, as it is shown in the case study, its use among YLs can be strongly influenced by parental motivation. Those who seek practice opportunities outside the classroom must be motivated to learn English and to improve their knowledge. Excerpt 32 illustrates planning as a metacognitive strategy.

*Excerpt 32: Planning (Interview 16, grade 4, female)*

‘Mindig az unokatesóimmal írunk olyat, hogy mikor mit fogunk csinálni, hogy mit tanulunk...

[Always, with my cousins, we write like when we will do what, what we will learn...]

Although the learner in Excerpt 33 seems to be satisfied with his vocabulary learning strategies, he would like to learn other methods to make vocabulary learning more effective. He seems to be aware that strategy use results in more efficient learning.

*Excerpt 33: Planning: Intention to learn new strategies to make learning words faster (Interview 18, grade 5, male)*

‘Kérdező: Szeretnél új módszert tanulni a szótanulásra?’

Tanuló: Igen, az idő rövideje miatt, hogy hogy lehet gyorsabban megtanulni.

[Interviewer: Would you like to know a new method for learning words?’

Interviewee: Yes, because time is short, to make learning words faster.]’

*Dictionary use* as a vocabulary learning strategy can be applied with different purposes. Although it is broadly discussed as a compensational (Oxford, 1990) or a lexical processing strategy (Fraser, 1999), the reason for listing it among metacognitive strategies is that young learners’ dictionary use, as Excerpts 34–36 illustrate, is directed to explore information about the aspects of word knowledge, such as meaning, orthography, parts of speech, etc. and functions rather as a metacognitive strategy of seeking practice opportunities.

*Excerpt 34: Dictionary use for checking language features: orthographical form (Interview 2, grade 3, female)*

‘Amikor a képes szótárat nézegetem, akkor abba bele van írva, hogy kell mondani.

[When I’m looking at the picture dictionary, it is written in it how to say.]’

In a picture dictionary the meanings of English words are represented by pictures, which help learners work out and memorize the meaning of vocabulary (Hardi, 2010a). Sometimes the pronunciation of lexical items is given either in phonetic symbols or written phonetically in the mother tongue. Though learners can feel assisted by this latter practice, it is a technique that may cause more harm than help, since the phonological features of English and Hungarian are quite distinctive, and it may have a detrimental effect on pronunciation and orthography as well, and, thus, it should be avoided in language learning.

*Excerpt 35: Dictionary use for checking language features: parts of speech (Interview 1, grade 3, female)*

‘A szótárat nézegetjük. Megnézzük, hogy ez például ige, ez meg főnév.

[We're looking up words in the dictionary. We find out whether it is, for example, a verb or a noun.]'

The focus of dictionary use in this example (Excerpt 35) is on parts of speech. This strategy helps learners identify another aspect of knowing a word, the form. In the current practice of language instruction learners can feel that besides meaning, the orthographical form is of outstanding importance, since the school practice of writing vocabulary tests is to elicit mainly meaning and form, and neglect the other aspects of knowing a word. The use of a strategy that would make learners aware of grammatical forms can contribute to the accurate use of vocabulary in bigger language units, such as a sentence. The above example also implies that the dictionary was used in a school setting. The primary function of this teaching strategy can be to familiarize learners with the different aspects of knowing a word, which strategy, then, can be utilized in vocabulary learning.

*Excerpt 36: E-dictionary use for meaning  
(Interview 1, grade 3, female)*

'Ha érdekel, hogy mondják hogy „pingvin”, megnézem a webfordítóban és kidobja angolul. Otthon is van ilyen szótáram és abba is szoktam írni.

[If I'm interested in how 'pingvin' is said in English, then I look it up in the web translator and it puts it out in English. I have got a vocabulary book like this at home too and I also write words in it.]'

Excerpt 36 is an example of how learners use different kinds of dictionaries. Internet dictionaries seem to be increasingly popular with young generations. Out of the 27 interviews 11 children mentioned that they used an online dictionary regularly. They are easy to handle, fast, and most importantly they can produce the pronunciation of words, so learners can listen to the word or expression told by a native speaker and can check the phonetic transcription of different usages. Since young language learners willingly use this form of word checking, it is not entirely subsidiary to enquire as to what kind of online dictionary they use (Felvégi, 2013). The other type of dictionary mentioned in this example is the self-prepared vocabulary book that is widely used in school practice. Dictionary use, though not directly contributing to learning a new lexical item, when supplemented by other strategies may facilitate language learning (Fraser, 1999).

In Excerpt 36 the word that was reported to be looked up in the electric dictionary was 'pingvin'. Since this word is a cognate, the learner was aware of its meaning, which is easy, and wanted to find out its pronunciation, which is difficult.



*Social strategies* can be conceptualised as belonging to the broader group of learning strategies, since vocabulary learning relies on the same process as general LLSs in this respect. When learners cooperate with others they use social strategies. Cooperation has several contributors and can be used for a number of purposes. The language proficiency of people involved in this kind of social interaction can be very diverse. There are parents with very low level foreign language knowledge or no mastery at all, who nevertheless seem to be the primary contributors to young children's language learning. Despite their generally limited language knowledge, they play an important role in young learners' learning processes and outcomes. There are other family members and peers who can also actively help children to learn a foreign language. The role of the teacher is, however, unquestionable in a school setting. Learners usually turn to them when they have problems with understanding. Another important role would be that of the native speaker's, but in foreign language settings learners rarely have the opportunity to communicate with them, or if they do, they do not take advantage of the situation. One of the reasons is that children find it stressful to engage in a communicative situation with a native speaker, and when facing a communication problem, children recall formulaic chunks, coin new words or switch into the mother tongue (Szulc-Kurpaska, 2000). In general, when learners want to explore meaning, clarify knowledge or need assistance to learn the language, they turn to someone for help. In the interviews all of the learners belonging to the youngest two age groups reported the use of at least one social strategy.

As it becomes obvious from the following example (Excerpts 37), the parents' or family members' role is very important especially in grades 3 and 4; however, this help seems to be restricted to practising new words and revising vocabulary with verbal repetition. Verbal repetition usually follows the order that the parent (mainly the mother) asks the Hungarian word from the vocabulary book and the child tells its English equivalent. Excerpts 5 and 8 are also examples of this way of employing social strategies.

*Excerpt 37: Asking for help: mother's help*

*(Interview 13, grade 4, female)*

'Anya szokott segíteni.

Kérdező: Könnyebb így tanulni?

Tanuló: Nekem könnyebb. Mondja, hogy mit csináljak, meg hogy csináljak, és akkor úgy megjegyzem.

[Interviewee: Mom helps me.

Interviewer: Is it easier?

Interviewee: It's easier for me. She says what to do and how to do it and then I memorise it.]'

A number of further examples can be found for learning with family members, like parents, grandparents, brothers or sisters, or even step-parents. Social strategies are also used in combination with other strategies. While social strategies seem to characterize the strategy use of the youngest age group under investigation, children in older age groups rarely seem to address anyone with the intention of asking for help or seeking practice opportunities.

Before presenting and analysing the results of the further aspects of strategic vocabulary learning, Table 5 presents the vocabulary learning strategies young learners used.

*Table 5: Summary of vocabulary learning strategies used by young learners*

<b>Cognitive strategies</b>	<b>Memory strategies</b>	<b>Metacognitive strategies</b>	<b>Social strategies</b>
Verbal repetition	Grouping (cognates)	Planning	Asking the teacher
Visual repetition	Lexical inference (LPS*)	Seeking practice opportunities:	Asking for help
Written repetition	Mental pegs	<i>Listening to English songs</i>	Cooperating with others:
Mechanical techniques	Imagery:	<i>Playing computer games</i>	<i>family members</i>
	<i>Pictures**</i>	Dictionary use: (LPS)	<i>peers, friends</i>
	<i>Mental representation</i>	<i>Checking meaning</i>	
		<i>Checking language features:</i>	
		<i>Orthographical form</i>	
		<i>Parts of speech</i>	
		E-dictionary use (LPS)	

\* LPS: Lexical Processing Strategies (inference, dictionary use, ignoring) (Fraser, 1999)

\*\* Subcategories are in italics

As Table 5 illustrates, young learners used a number of different strategies for learning vocabulary. The strategies belong to the groups of cognitive, memory, social, and metacognitive strategies. The most frequently used strategies belonged to the social and cognitive strategy groups. Most of the participants reported their preference for peer-collaboration, and used repetition strategies for consolidating word meaning.

### **Self-regulating capacity in vocabulary learning**

Investigating self-regulation is of growing importance in the area of language learning as well, since self-regulated behaviour seems to make a way into the practice of strategic language learning. The use of learning strategies is only one facet of self-regulated language learning, but the concept can be examined from a broadening perspective which is made up of

a whole series of integrated and interrelated microprocesses (Tseng et al., 2006). As the following examples show, metacognitive strategy use may include metacognitive control. Examples of further constituents of self-regulation, such as motivation, self-efficacy, satisfaction, etc., will be reported in the following sections.

Self-regulated learners seem to be emotionally and cognitively controlled and motivated in their language learning behaviour. Self-regulation is one's capacity to govern certain mechanisms, such as self-control, self-management, self-direction, independence, etc. It is the ability to control emotions and behaviour adaptively in particular situations. The following examples, with the involvement of self-control mechanisms, reflect primarily learners' self-regulated behaviour.

*Commitment control strategies* help to maintain or increase the initial goal commitment in language learners.

*Excerpt 38: Commitment control (Interview 14, grade 4, female)*

‘Az ajtón van egy házirend, hogy... és akkor van szabad foglalkozás, ha kész van a lecke..., és egyből megyünk az asztalhoz írni.

[There is a policy on the door that... and I can do anything free when the homework is done..., and we immediately go to the desk {after arriving home} to write it.]’

The learner in Excerpt 38 uses a kind of ‘household rule’, which helps her organize her learning activities. By writing a regulation to herself, and keeping to it, the language learner guides her own learning, and expresses a high degree of commitment control. If it is written by the learner's parents or with their help, it is indicative of external control, but keeping to it is the learners' responsibility, which reflects her commitment control.

*Metacognitive control strategies* are in charge of monitoring and controlling concentration, and restraining unnecessary procrastination.

*Excerpt 39: Metacognitive control (Interview 22, grade 8, female)*

‘Iszok egy pohár vizet, és aztán..., utána nekiállok...

[I drink a glass of water and then..., after that I set up...]

Excerpts 38 and 39 show how some learners start language learning. Planning and arranging are metacognitive strategies that serve as prerequisites of language learning. When learners prepare for learning they are aware of their duty and act under metacognitive control.

*Satiation control strategies* are responsible for eliminating boredom and adjoining extra attraction or interest to a language task.

*Excerpt 40: Satiation control (Interview 4, grade 7, female)*

‘Kérdező: És mindig van kedved szavakat tanulni?’

Tanuló: Hát..., van mikor igen, van mikor nem. Attól függ, hogy milyen a téma, vagy ilyesmi..., a hangulat is...

Kérdező: És mit csinálsz, hogy legyen hozzá hangulatod?

Tanuló: Meggyőzőm magam, hogy fontos.

[Interviewer: And do you always feel like learning words?

Interviewee: Well..., sometimes yes, sometimes no. It depends on what the topic is like or something like this..., also the mood...

Interviewer: And what do you do for getting in the mood?

Interviewee: I persuade myself about its importance.’

In Excerpt 40 the learner expresses her feeling towards learning English. It illustrates that liking depends on a lot of factors, such as the topic or the learner’s mood. The pupil, however, recognizes how her mood plays a role, and tries to eliminate the negative feeling.

*Environmental control strategies* help getting rid of negative environmental influences and taking advantage of positive environmental influences by creating a friendly environment in order to reach a difficult goal.

*Excerpt 41: Environmental control (Interview 11, grade 8, female)*

‘Szólok, hogy halkítsák le a TV-t. ....vagy felmegyek, de akkor meg csend van, és az sem jó. Azért szoktam a mamával tanulni, mert akkor kérdezek valamit, és akkor...

[I say to turn the TV down..., or I go upstairs, but there is silence, and it is not good either. That’s why I learn with my grandma, because I ask something, and then...]

The girl in Excerpt 41 is aware that the loud voice coming from the TV distracts her attention from learning and takes steps to control the environment.

The above Excerpts (40 and 41) illustrate how these learners prepare for learning in general, i.e. how they adjust their physical needs and the environment in order to learn more effectively.

### **Attitude and motivation towards learning English vocabulary**

Learners taking part in this research reported generally positive attitudes towards the English language and its learning. Although, they reported some difficulties with language learning, they were mainly satisfied with the strategies they used and also with their achievements in

language learning. They felt they could succeed with the help of their teacher's instruction and parents' guidance.

The following examples highlight some of the general aspects of motivation, such as intrinsic and extrinsic motivation, integrative and instrumental motivation, which can be assumed to have some short or long-term effect on language learning.

*Excerpt 42: Intrinsic motivation: interest/challenge + external factor  
(Interview 1, grade 3, female)*

‘Én szeretem az új dolgokat és így érdekel {a szótanulás}, és így sokkal több kedvem van hozzá, mint akinek nincs. És nálunk, a családban mindenki angolt tanul...

[I love new things and so I'm interested {in learning words}, and I feel more like it than those who don't {feel like it}. And, at us, in our family, everyone learns English...]

The main motive in Excerpt 42 is intrinsic interest for new things, which are very attractive for this learner because they are new or because they need some challenge to learn, i.e. they require creative effort from the pupil. This finding implies that the interest for vocabulary learning could potentially be maintained in the course of language learning through challenging tasks that motivate particular learners. The external factor of ‘everyone is learning English in the family’ provides the reason for language learning and can help to maintain interest either by exploiting the social strategy of family members' contribution to language learning or by motivating the learner to achieve a higher level of language proficiency compared to family members.

*Excerpt 43: Extrinsic motivation: agreement on using the computer  
(Interview 17, grade 4, male)*

‘Ha megtanultam mindent, meg szokta anyukám engedni, hogy számítógépezzek.

[Having learnt everything, my mom lets me play on the computer.]’

Although Excerpt 43 is an example of extrinsic motivation in which the learner acts for a reward, and rewarding motivates externally, this kind of motivation can be internalized by the language learner in a form of agreement. Furthermore, if the learner sets this goal for himself, it can also function as a self-rewarding strategy, which is a sign of instrumental motivation.

*Excerpt 44: Instrumental motivation: utilitarian reasons  
(Interview 2, grade 3, female)*

‘Szerintem azért jó, mert sok helyen lehet használni.

[It's good, to my mind, because it can be used in a lot of fields.]’

The expediency of language learning is referred to in this example. Language knowledge is said to be important if someone visits other countries. It is a motive more commonly reported by adult language learners, as well (Hardi, 2011c).

*Excerpt 45: Instrumental motivation: career-orientation*

*(Interview 13, grade 4, female)*

‘Szeretném a felsőfokút megcsinálni és fogorvos lenni.

[I’d like to pass the advanced language exam and I’d like to be a dentist.]’

Career-orientation is a form of instrumental motivation. In Excerpts 45 and 46 the goals of language learning were to get a good and well-paid job, and to pass a language exam. The exam is necessary for entering further education and for future career prospects. The 4<sup>th</sup> grader pupil in Excerpt 46, however, seems to confuse the terms of ‘high level school leaving exam in English’ and the ‘state language exam’.

*Excerpt 46: Instrumental motivation: passing the language exam*

*(Interview 6, grade 7, female)*

‘...hogy az életben legyen valami, nehogy ilyen rossz szakmát kapjak... és az emelt szintű nyelvvizsga.

[...there should be something in life, not to get a bad profession... and to pass the intermediate language exam.]’

Another motivating factor in language learning is travelling. The learner in Excerpt 47 is directly motivated by travelling since he has travelled a lot and is planning further journeys, and, thus, he directly feels the importance of language knowledge.

*Excerpt 47: Instrumental motivation: travelling*

*(Interview 8, grade 4, male)*

‘Most a nyáron is ki fogunk menni Kanadába. Angliában kétszer voltunk. Mamámék nem tudnak angolul. Én vezettem szinte őket Londonban. Például kértem egy kávét, mert mamám szereti a kávét, vagy mikor elmentünk a boltba, akkor értettem, hogy... hát eléggé selypítenek az angolok, hogy „sixteen”..., mert annyiba került valami. [This summer we’re travelling to Canada, too. We’ve been to England twice. My grandparents can’t speak English. I almost took them around in London. For example, I asked for a coffee, because my grandma likes coffee, or when we went to the shop, I understood that... well the English lisp a bit... that ‘sixteen’... because something cost that much.]’

Excerpt 48 exemplifies cultural-merging which is a form of integrative motivation. The learner wants to learn English in order to understand what singers sing in English, thus bringing the language learner closer to the culture of the target country.

*Excerpt 48: Integrative motivation: cultural-merging  
(Interview 15, grade 4, female)*

‘Anya azt mondta, hogy válasszak németet, mert most sok ilyen gyár... vagy külföldi jön ide, mert akkor hamarabb vállalhatnék munkát, és én mondtam, hogy angolt szeretnék tanulni, mert vannak ilyen sztárok akiket én szeretek és akkor nem tudom, hogy mit mondanak a dalban, és azokat akiket én szeretek azok angolok és azért választottam az angolt.

[My mom told me to choose German, because there are a lot of such factories... or a lot of foreigners come here, because then I would get jobs more easily, and I said that I wanted to learn English, because there are kinds of celebrities whom I like and then I don’t know what they sing in songs and those I like are English and that’s why I chose English.]’

Instrumental motivation appeared in Nikolov’s groups at the age of 11 or 12 (1999a). As for the above examples, instrumental motives emerged a bit earlier, around the age of 10 in these learners, but they remained general. Nowadays in the era of globalization and internet use these learners seem to be more aware of the external factors that motivate language learning than pupils were a decade ago. The sources of motivation were also found (Nikolov, 1999a) to vary at different ages, and although instrumental motives emerged later, they appeared in balance with classroom-related motives. If classroom activities do not motivate children, they will not pay attention (Nikolov, 1999b). In Table 6 the different motivational factors reported by the interviewees are summarized.

*Table 6: Summary of types of motivation*

<b>Extrinsic</b>	<b>Intrinsic</b>	<b>Instrumental</b>	<b>Integrative</b>
Reward/Computer use	Interest/Challenge	Career orientation Language exam Travelling Utilitarian reasons	Cultural-merging

As illustrated, YLs use a range of motivational strategies that drives them to learn vocabulary in English. These drives represent extrinsic, intrinsic, instrumental, and integrative motivations. The most frequently reported motivational type was instrumental motivation, which motivated the learners to learn English in order to find a career, pass a language exam, travel, or to utilise it in multiple areas of real life experience.

## Self-motivational strategies

Self-motivational strategies can serve as the Initial Appraisal of Vocabulary Learning Experience (IAVLE) or can function as Post-Appraisal of Vocabulary Learning Tactics (PAVLT) (Tseng & Schmitt, 2008). IAVLE is conceptualized “as the initial motivational level of vocabulary learning, which can be indicated by value, interest, effort, or desire” (Tseng & Schmitt, 2008, p. 361). *Learning anxiety* and *self-efficacy* are the indicators of IAVLE in Tseng and Schmitt’s model of motivated vocabulary learning (2008), since these aspects comprise learners’ *self-confidence*. Self-confidence is a very important motivational factor because it “refers to the belief that a person has the ability to produce results, accomplish goals, or perform tasks competently” (Dörnyei, 2005, p. 73). It considerably affects learners’ motivation to learn and use a second language (Clément & Gardner, 2001; MacIntyre, 1991).

*Learning anxiety* greatly affects self-confidence; therefore, it can be seen as a component of self-motivation. “Anxiety is quite possibly the affective factor that most pervasively obstructs the learning process” (Arnold & Brown, 1999, p. 8). *Foreign language anxiety* is conceptualized as a situation-specific anxiety construct (Horwitz et al., 1986), which entails “worry and negative emotional reaction aroused when learning or using a second language” (MacIntyre, 1999, p. 27). Although, performance in a general learning activity can be increased by anxiety, it is generally negatively correlated with language anxiety (Dörnyei, 2005). Consequently, it is vital to identify the reasons for being anxious in order to reinforce strategies language learners use to lower anxiety. The reasons for anxiety identified by YLs in the following examples fall in line with adult language learners’ explanations (Hardi, 2010b; 2013). Accordingly, learners feel anxious about writing vocabulary tests, getting bad grades, making errors, learning something in the wrong way or when engaged in a conversation. Dörnyei’s emotion control strategy (2005, p. 113.) which helps learners to manage disruptive emotional states or moods, and generates positive emotions to accomplish one’s intentions includes anxiety control.

*Excerpt 49: Lowering anxiety: Asking for help – Test anxiety  
(Interview 1, grade 3, female)*

‘Felmérőkor nagyon izgulok, mert rám esik az összes tanulás, de azért anyukám este gyorsan kikérdezi.

[I feel very nervous when we write tests, because I have to learn everything alone, but my mom quizzes me on the words quickly in the evening.]’



In Excerpt 49 the learner provides a kind of solution to override anxiety. The girl refers to the social strategy of cooperating with her mother as a strategy to lower anxiety and raise self-confidence. She must either feel more self-confident after practicing with her mother or can shift the responsibility in case not performing well.

Although Excerpts 50 and 51 show that anxiety prevails in certain learning situations and contexts, they do not report on compensations or any other strategies to lower anxiety. Nevertheless, they can use strategies like these but they may not be aware of their use (Hardi, 2013).

*Excerpt 50: Anxiety: getting low grades – Fear of negative evaluation  
(Interview 3, grade 3, male)*

‘Szoktam izgulni, főleg a felmérőknél, mert attól félek, hogy 3-as, 4-es. Nekem, nálam csak az 5-ös, meg a csillagos 5-ös a legjobb.  
[I feel anxious, especially when we write a test, because I am afraid that it will be 3 or 4. For me only 5 or 5 with a star are the best.]’

*Excerpt 51: Anxiety: Test anxiety/ Fear of negative evaluation  
(Interview 13, grade 4, female)*

‘Kérdező: Szoktál izgulni a szótanulás miatt?  
Tanuló: Csak ha dogát írunk, hogy nem fog jól sikerülni.  
[Interviewer: Are you anxious about learning words?  
Interviewee: Only when we are writing a test, for it won’t be successful.]’

Nikolov (1999a) found that even though children learn in a relaxed classroom environment they still regard tests as indicative of threat. Moreover, anxiety develops gradually over the years implying that younger learners are not as nervous as their older peers. Some of the interviewees in this research even responded with a query of ‘about tests?’ to the question of ‘do you sometimes feel nervous?’, signifying test taking as the primary facilitator of anxiety.

Although Excerpts 52 and 53 do not indicate direct relationship with test anxiety, they can be related to it. The learners feel anxious about learning words or saying something in the wrong way, or confusing words. Although tests are not mentioned here, these forms of anxiety can be related to the school practise of asking learners about what they have learnt.

*Excerpt 52: Anxiety: learning in a wrong way  
(Interview 16, grade 4, female)*

‘Kicsit szoktam... Azért hogyha például valamit rosszul tanulok meg, összetévesztem, akkor szoktam egy kicsit izgulni...  
[I feel anxious a bit... because of, for example, if I learn something in the wrong way, confuse words, then I’m nervous a bit.]’

*Excerpt 53: Anxiety: speaking – Communicative apprehension  
(Interview 11, grade 8, female)*

‘Nem merek angolul beszélni..., hogy nehogy rosszul mondjam.  
[I can’t dare to speak English..., so as not to speak it in the wrong way.]’

*Self-efficacy* refers to a person’s belief that he/she is capable of carrying out certain specific tasks; therefore, it formulates the self-motivational beliefs of an individual. The way people feel, think, motivate themselves, and behave is influenced by their efficacy beliefs (Bandura, 1997). Self-efficacy has been found to correlate with self-confidence and self-esteem (Valentine, DuBois, & Cooper, 2004). *Difficulties* in vocabulary learning were explored in terms of self-efficacy, since the difficulties YLs meet and try to eliminate can highly influence the belief that they are able to perform a certain task.

The most difficult activities in vocabulary learning, as some of the respondents indicated (n=10), were learning the pronunciation and the orthographic form, and memorizing meaning. These features of knowing a word commonly occur together, since unknown words are first written in the vocabulary, and then learnt by heart.

*Excerpt 54: Self-efficacy – Locating and overriding difficulty with pronunciation (Interview 1, grade 3, female)*

‘Vannak könnyű szavak, meg nehezek... de ha anyu úgy látja, hogy valamelyiket nem tudom, akkor segít a hangzásában és úgy már könnyű.

[There are easy and difficult words... but if my mother thinks I don’t know one of them, she helps me with sounding it out and this way it becomes easy.]’

This learner (Excerpt 54) has some metacognition about English vocabulary and with the help of it she can rank words in the order of learning difficulty. The learner employs a social strategy; her mother helps her locate the difficulty and provides support for learning the difficult function.

*Excerpt 55: Self-efficacy – Locating difficulty in pronunciation (Interview 1, grade 3, female)*

‘Amikor kiejtjük úgy nagyon furcsa, mert más mint a magyar, úgy nagyon meg kell nézni, hogy abban van-e r betű, mert nagyon nem lehet hallani azt a különbséget.

[When we say it, it is very strange, because it is different from Hungarian, so it must be seen very well, whether there is an r in it, because the difference cannot be heard well.]’

The learner in Excerpts 54, and 55 has difficulties with how to pronounce words. She states that there are easy and difficult words, and says she must pay attention to the spelling of the word compared to Hungarian in order to be able to learn it with the right pronunciation. Locating and overriding the difficulty make her feel efficient in learning vocabulary.

*Excerpt 56: Self-efficacy – Overriding difficulties with pronunciation  
(Interview 13, grade 4, female)*

‘Nekem úgy a könnyebb, hogy elsőnek úgy jegyzem meg, ahogy írák. Ha nem tudom kiejteni, akkor csak úgy tanulom meg, ahogy írák. Utána anya sokszor kijavít. Annyiszor elmondják nekem, hogy meg tudom jegyezni.

[For me, it’s easier if I first memorise how it is written. If I cannot pronounce it, then I learn it only as it is written. Then mom corrects me a lot. It is told to me so many times that I’m able to learn it.]’

The girl in Excerpt 56 has a preference for visual learning style, because she states that learning words is easier once she has seen their written form. However, this strategy does not spur the right use of orthographical form, but it is rather a phonetic pronunciation strategy that relies on L1 knowledge (Nikolov, 1999a) and involves the Hungarian version of what sounds are like. Thus, although it is a very powerful strategy, it can delay learning of an authentic pronunciation of words.

Learning style preference influences how learners acquire knowledge more easily, but the frequency and direction of practice opportunities also contribute to the acquisition of certain features of vocabulary. The following example (Excerpt 57) reports that orthography is more difficult for the language learner than pronunciation.

*Excerpt 57: Self-efficacy – Difficulty with orthography  
(Interview 22, grade 8, female)*

‘Hát..., lehet, hogy az írás kicsit nehezebben megy. Szóban jobban tudom.

[Well..., may be writing is a bit more difficult. I know it better in speech.]’

Satisfaction, skilfulness, and self-rewarding also function as self-motivational strategies, but these motivate post-action, and, thus, belong to Post-Appraisal of Vocabulary Learning Tactics (PAVLT).

*Skilfulness* and *satisfaction* are used as components of PAVLT by Tseng and Schmitt (2008). *Skilfulness* in vocabulary learning includes the ability to learn a lot of words at a time, to remember words for a long time, and to work out difficulties learners face when learning

new words. The strategy of overriding difficulties denotes learners' feelings of skilfulness and satisfaction, and, thus, highly contributes to successful language learning.

*Excerpt 58: Skilfulness in retaining words*

*(Interview 11, grade 8, female)*

'Tanuló: Nem szeretek szavakat tanulni... mert elveszi az időt, én kint szeretek lenni most, és akkor be vagyok zárva...

Kérdező: Azért úgy gondolod, hogy hatékonyan tanulsz a szavakat?

Tanuló: Hát nagyon remélem. Megmaradnak azért...

[Interviewee: I don't like learning words... because it takes time, and I like to be outside and then I'm closed.

Interviewer: But, do you think, you learn words effectively?

Interviewee: I hope so. They are retained...]

This learner in Excerpt 58 claims that although she does not like learning words, she learns words effectively and remembers them for a long time. This example implies that the learner demonstrates self-regulatory control, because it illustrates how she tries to force herself to do what her duty is. The hope that she is effective illustrates the positive outcome of self-regulation on language learning.

*Satisfaction* is a key component of motivation in Keller's ARCS model<sup>6</sup>, which also includes attention, relevance and confidence (1987). If learners are satisfied with their learning outcome, they will be motivated to learn. Moreover, learners who make positive judgments about learning feel motivated to continue learning, because they are sensitive of the value in what they are doing. Satisfaction encourages positive retrospective self-evaluation in the language learner, thus, it functions as a self-motivating strategy.

The following Excerpts 59–63 show how learners are satisfied with their strategies of learning English words and with their word retention after learning vocabulary. The next learner feels the importance of learning words and reports his feelings in connection with vocabulary learning:

*Excerpt 59: Satisfaction after learning (Interview 5, grade 7, male)*

'Ha megtanultam, akkor már jobb érzés, nem bánt már a lelkiismeret..., már megtanultam, túl vagyok rajta, nyugodtan készülhetek holnapra.

[After learning it is a better feeling, I don't have a guilty conscience..., and I have learnt, I'm over it, I'm relaxed to learn for the next day.]'

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<sup>6</sup> The ARCS model is a problem solving approach which aims to design the motivational aspects of learning environments in order to stimulate and sustain students' motivation to learn (Keller, 1987). The model consists of two major parts. In the first part a set of categories, which are the result of a synthesis of the research on human motivation, represent the components of motivation. The second part of the model helps to create motivational enhancements that are appropriate for learners.

The learner in Excerpt 59 feels relaxed and satisfied, because having completed the task of learning the English words he has also reduced his levels of anxiety.

*Excerpt 60: Satisfaction with strategy use*

*(Interview 13, grade 4, female)*

‘Kérdező: elégedett vagy a szótanulási módszereddel?’

Tanuló: Nem, mert nem tudok sok szót egyszerre megtanulni.

[Interviewer: Are you satisfied with the way you learn words?’

Interviewee: No, I’m not, because I can’t memorise a lot of words at the same time.]’

The learner in Excerpt 60 expresses her dissatisfaction with her strategy use, because she cannot memorise as many words as she would like to.

*Excerpt 61: Satisfaction with strategy use*

*(Interview 2, grade 3, female)*

‘Kérdező: Szeretnél új módszert tanulni a szótanulásra?’

Tanuló: Hát... Még nem gondoltam erre.

[Interviewer: Would you like to know a new method for learning words?’

Interviewee: Well... I haven’t yet thought about it.]’

Excerpt 61 illustrates that learners can feel confused about the quality of their vocabulary learning efficiency, and that they do not know if they want to explore new ways of vocabulary learning. The reason for this can be that they have never had the opportunity of getting acquainted with strategies other than the ones they use or they may not be aware of the effectiveness of those they use. This fact also underlines the importance of strengthening metacognition in language learners.

*Excerpt 62: Satisfaction with word retention*

*(Interview 5, grade 7, male)*

‘Kérdező: Emlékszel a megtanult szavakra?’

Tanuló: Hát..., emlékszek valamennyire. Olyan, mint egy dalszöveg. Emlékszek rá!

[Interviewer: Do you remember words once you have learnt them?’

Interviewee: Well..., I remember a bit. It’s like a text of a song. I remember it.]’

*Excerpt 63: Satisfaction with word retention*

*(Interview 3, grade 3, male)*

‘Sokáig emlékszem. Ha régen volt már a szó, mondjuk 5 hónapja, nagyon nehéz visszaemlékezni.

[I remember for a long time. If a word occurred, let’s say, 5 months ago, it’s very difficult to remember.]’

Although the learner in Excerpt 63 states he remembers words for a long time, he is aware of the limitation of his memory, and says it is difficult to recall words that occurred about five months earlier. This period can be the margin of being able to recall words without evoking meaning.

Satisfaction is in close contact with self-evaluation. Nikolov (2003b, p. 15) found some evidences for learners' low self-evaluation. When examined 6<sup>th</sup> graders strategy use, she found that in a Hungarian context positive self-evaluation seems to be less acceptable than declaring negative statements about ourselves, and children regard it as either childish or conceited. Another reason for the low level of self-evaluation in Hungarian learners, she argues can be due to the relatively infrequent praise used by teachers. The self-evaluation of learners interviewed here seems to be balanced, i.e. they neither over- nor under-evaluate themselves. Most of them reported they are good at learning English, learn effectively, use adequate strategies for learning vocabulary, and get good grades, so, they must have been successful language learners.

*Self-rewarding* can function as a form of self-motivation and can exert a supportive effect on language learning. Rewards generally encourage students to learn better and self-rewarding is an extrinsic motive that can sustain language learning in the short run. Wolters, as an extension of his previous work (1999), offered a system of macrostrategies for the regulation of motivation (2003). In his system, the term 'self-provided extrinsic rewards' is used within *self-consequating*, which is conceptualised among the eight key strategic ways, such as goal-oriented self-talk, interest enhancement, environmental structuring, self-handicapping, attribution control, efficacy management, and emotion regulation, which make it possible for learners to regulate their motivation. Rewards reinforce the learner's desire to reach a particular goal associated with completing a learning task. Rewards can be concrete, such as eating an ice-cream, or more subtle, such as making self-praising verbal statements (Wolters, 2003). Here, I present examples for both concrete and subtle ways of self-rewarding.

*Excerpt 64: Self-rewarding: eating (Interview 10, grade 5, male)*

'Kérdező: Ha jól megtanultad a szavakat, meg szoktad jutalmazni magad?

Tanuló: Igen. Eszek egy csokit.

[Interviewer: When you have learnt English words well, do you reward yourself?

Interviewee: Yes. I eat some chocolate.]'

Another learner reported making a sandwich for himself. The fact that learning comes before eating shows a way of learners' self-regulated behaviour.

The following example (Excerpt 65) is a good illustration of a high level of self-regulated behaviour, since right after learning vocabulary the learner turns to learn something else and she is aware that only after having learnt all the material will she have time to relax.

*Excerpt 65: Self-rewarding: relaxing (Interview 11, grade 8, female)*

Tanuló: Ha megtanultam a szavakat, akkor elkezdem tanulni a szöveget.

Kérdező: És akkor mi a jutalom?

Tanuló: A pihenés, abból kevés van...

[Interviewee: After having learnt all the words, I start to learn the text.

Interviewer: And what is the reward then?

Interviewee: Relaxing, there is little from it...]

Excerpt 65 is also an example of a high level of self-regulation, since the learner learns all the material first and then she can relax. This relaxation serves as a kind of self-rewarding strategy for her.

*Excerpt 66: Self-rewarding: feeling happy*

*(Interview 13, grade 4, female)*

Kérdező: Megjutalmazod magad, ha megtanultad a szavakat?

Tanuló: Nem..., csak örülök.

[Interviewer: Do you reward yourself after having learnt the words?

Interviewee: No..., I just feel happy.]

Excerpt 66 illustrates how satisfaction after learning can function as a self-rewarding strategy. The examples above demonstrate different forms of self-rewarding, from external forms, like eating chocolate or playing computer games, to internalized rewarding, like relaxing and joy of achievement. Rewarding that derives from external factors can be internalized in a form of agreement and function as a driving force for fulfilling the learning activity and achieving the reward. Table 7 illustrates strategies used for self-regulating capacity and for self-motivation in learning vocabulary.

*Table 7: Summary of self-regulating capacity and self-motivation in learning vocabulary*

<b>Self-regulating capacity</b>	<b>Self-motivational strategies</b>
Environment control	Self-efficacy: <i>Retaining words*</i>
Metacognitive control	Lowering anxiety: <i>Asking for help</i>
Satiation control	Skilfulness: <i>Overriding difficulties</i>
Commitment control	Satisfaction: <i>Satisfaction with strategy use</i> <i>Satisfaction after learning</i>
	Self-rewarding strategies: <i>Eating</i> <i>Feeling happy</i> <i>Relaxing</i>

\* Subcategories are in italics

#### **4.1.3 Results and discussion concerning awareness of strategy use**

In this section I present excerpts through which I try to demonstrate how aware or unaware young learners were regarding their strategies used for learning vocabulary. Awareness, as I have discussed in the literature review (Dörnyei, 2009), is an important issue in language learning, and, thus, in learning vocabulary, since strategies operating on different level of awareness can influence acquisition differently.

Awareness in strategy use can be represented on a scale. At one end learners use strategies consciously, i.e. they know what strategies they use and how they use them, and at the other end of the scale there is spontaneous use, when learners are not aware of using strategies at all and they do not know how they learn, and find it hard to verbalize their own learning behaviour. Nikolov (2003b, p. 24), for instance, found evidence that only some of the sixth-graders reported on conscious strategy use, but the majority of learners were at the unconscious end of the continuum. With the subsequent interview answers, my intention is to place the examples on a scale in order to make the degree of conscious strategy use clearer.

*Excerpt 67: Unawareness of grouping as a strategy*

*(Interview 3, grade 3, male)*

‘Kérdező: Szoktad csoportosítani a szavakat?’

Tanuló: Nem.

Kérdező: Mert látom, hogy „papagáj” – „parrot”, „mouse”, „elephant”...

Tanuló: Én nem szoktam, meg mi se szoktuk, csak úgy elmondjuk.



Kérdező: Itt is látom, hogy pl. „toll” – „pen”, „ceruza” – „pencil”.  
 Tanuló: Úgy van, hogy egy időben tanulunk, akkor leírjuk azokat a szavakat, amik újak. Jobb így, hogy mindent tudok.  
 [Interviewer: Do you group words?  
 Interviewee: No.  
 Interviewer: But I can see here that ‘papagáj’ – ‘parrot’, ‘mouse’, ‘elephant’...  
 Interviewee: I don’t, and we don’t either, we only say them.  
 Interviewer: I can see here, for example, ‘toll’ – ‘pen’, ‘ceruza’ – ‘pencil’...  
 Interviewee: We learn [words] at the same time, then we write down the words which are new. It’s better, because I know everything.]’

Though grouping appears to be a common strategy, and frequently occurs in language learners’ vocabulary book, it seems not to be internalised by this learner (Excerpt 67), i.e. there is no transfer between teaching and learning strategies, and grouping does not evidently lead to knowing. The learner does not even realise or notice strategy use, so it can be stated he is not a conscious language learner. The reason for his unawareness can be the lack of adequate strategy instruction, which seems to be necessary in this case to raise learner’s awareness about the positive effects of exploiting grouping as a VLS.

*Excerpt 68: Unawareness of using a social strategy  
 (Interview 2, grade 3, female)*  
 ‘Kérdező: Hogyan tanulod a szavakat?  
 Tanuló: Nem tudom... Megkérdezek valakit.  
 [Interviewer: How do you learn words?  
 Interviewee: I don’t know... I ask somebody.]’

The answer that comes first to the question of enquiring about the way of learning words is quite typical: ‘I don’t know’. However, the learner in this interview added that she asks somebody, i.e. she recalled the use of a social strategy, which can function as a compensation strategy of the learner’s helplessness. Nevertheless, it is quite clear from her answer that she doesn’t consider asking somebody a learning strategy.

*Excerpt 69: Unawareness in using verbal repetition as a learning strategy (Interview 3, grade 3, male)*  
 ‘Úgy, hogy így elmondom a szavakat, és úgy emlékszem.  
 [Well, I say the words and I remember.]’

The learner refers to verbal repetition here, though he is not aware of what he does when he wants to memorise words. Actually, if all the strategies reported in examples are considered, it must be stated that verbal repetition is the strategy learners commonly employ (n=23) and are

aware of using. Although they seem to be conscious of using this strategy, they do not know how it works and how it functions as a strategy.

There are further examples illustrating that learners believed they did not use any strategies, but in the course of the interview it turned out that they did use certain strategies besides verbal repetition, such as looking up words in a dictionary, grouping, relating meaning to pictures, mental images, etc. but they do not think about them as strategies that directly assist language learning.

In the following example (Excerpt 70), the learner speaks about using computer games, but he is unaware he can learn from playing them. He also uses a dictionary and the combination of these two learning strategies can result in language acquisition. The learner states he learnt only one word ‘army’, because he looked it up in a dictionary. This outcome is in line with the use of language processing strategies (Fraser, 1999) that result in language learning, and highlights that language acquisition occurs if strategies are employed in combination with each other.

*Excerpt 70: Unawareness of using computer games for language learning (Interview 3, grade 3, male)*

‘Nem szoktam {internetezni, dalokat hallgatni}, de csak egy szót tanultam azon kívül, hogy otthon tanultam, az “army” azt jelenti, hogy hadsereg, mert benne van a játékban, hogy “army racing” és ilyen játék, katonai. És Nikinek van ilyen kis szótára, hogy angol-magyar és benne vannak {a szavak}. Kettő is van neki.

[I don’t {use the internet}, but I have learnt only one word besides the words I learn at home, army means ‘hadsereg’, because it is in the game that ‘army racing’, some sort of game, army game. And Niki has a kind of dictionary, English-Hungarian, and they [the words] are in it. She has got two.]’

Two examples are cited below (Excerpts 71 and 72) to show how learners employ strategies consciously. Although almost all the examples I have analysed so far in this part of the research can be considered to be strategies learners are aware of, these two following extracts demonstrate a high level of awareness in vocabulary learning strategy use.

*Excerpt 71: Awareness in memorizing meaning (Interview 22, grade 8, female)*

‘Hát..., úgy szoktuk, hogy ő... először leírom a szót a szótárunkba..., aztán pedig... sokszor elolvasom, aztán pedig otthon egy papírra így ő... leírom magamnak és kikérdezem. És amíg nem tudom az összeset, addig gyakorlom.

[Well..., we do that hmm... first I write it in our vocabulary, then I... read it a lot of times, and then on a piece of paper at home hmm ... I write it to myself and quiz it on. And I practise it till I know all.]’

*Excerpt 72: Awareness in seeking practice opportunities  
(Interview 21, grade 8, male)*

‘Például ööö..., interneten például olvasok ilyen külföldi internetes honlapokat, például a New York Times, vagy esetleg a ööö... a BBC-nek a honlapját, és akkor onnan ami szót nem tudok azt úgy beírom a... ilyen webszótárba és akkor kiadja, és akkor valahogy megjegyzem, ilyen felfogó képesség szerintem ..., az úgy nekem annyira jó. Meg aztán amikor..., például zenét hallgatok és akkor is például már megértem a szövegét meg minden... és akkor ezzel gyakorlom a kiejtést is...

[For example, hmm..., I, for example, read on the internet foreign web pages, such as the New York Times, or may be the, hmm..., the webpage of the BBC, and then if I don’t know a word there, I write it in the web dictionary and then it shows, and then I somehow memorize it, a kind of a mental ability, I think,... it is quite good for me. And then ... for example when I listen to some music and then I understand its text and all..., and then I practice the pronunciation with it too...]

The learners in the above examples report the use of a number of strategies. The boy in Excerpt 72 is aware that utilizing practice opportunities results in language learning. He reports reading newspapers, using an e-dictionary and listening to songs in the target language, and refers to his cognitive skill which he thinks is essential to memorize word meaning and to practise another aspect of vocabulary knowledge and pronunciation. He also uses guessing from context, which is a strategy of inference.

In this section I illustrated through examples how aware language learners were of their strategies and found that awareness varied to a great extent. There were learners who were able to recall meticulously what they did when learning the vocabulary, but others seemed not to be aware of even the most salient strategies they used.

#### **4.1.4 Results and discussion of age-related differences in strategic vocabulary learning**

In this section, differences in strategy use are highlighted briefly to demonstrate the most common vocabulary learning behaviour characteristics of the age groups under investigation. My goal is to shed light on some changes that occur in strategy use across the ages. Since there is a considerable difference in the number of years learners have spent on language learning, it was assumed that they would report on a range of strategies, and a tendency of development emerges with age. Therefore, age-related differences in the strategy use of

children have been captured when the interviews were analysed. Strategies most commonly indicated by the children belonging to one age group have been identified as characteristic of the strategic behaviour of that age group. Since this kind of interview data, aside from frequencies, cannot be quantified, generalizations can only be made about what happens at different ages. Here, in this part of the dissertation, the broad range of strategies the participants used was identified. Therefore, further quantitative research is necessary to characterise strategic vocabulary learning in different ages and contrast age-related differences with each other.

### ***Age group 1: grades 3 and 4***

The use of strategies by the youngest children interviewed was congruent with the Taiwanese elementary school learners' strategy profile (Lin, 2001, p. 145 cited in Oxford, 2003b, p. 348) (Table 1). The Hungarian learners also used cognitive, metacognitive, and social strategies for vocabulary learning. Although the third and fourth graders used a variety of strategies, and some of them seemed to be self-regulated in vocabulary learning, they mainly used cognitively shallow strategies, for example, the use of repetition prevailed in this age group, just as in the case of the Taiwanese learners. Moreover, the language learning process of this age group was highly governed by social strategies, i.e. the youngest learners made advantage of asking someone – mainly family members – for help in learning vocabulary and cooperated with others, which suggests that school practice was not enough for them to learn words.

However, besides the use of repetition strategies, the use of cognitively more demanding strategies appeared in some learners' vocabulary learning. The youngest learners reported using grouping (Excerpts 14, 15, 17, and 18), mental pegs (Excerpts 18 and 19), visual representation (Excerpt 26), lexical inference (Excerpt 28), listening to English songs (Excerpt 30), using a printed dictionary (Excerpts 30, 34, and 35), using an e-dictionary (Excerpt 36), planning their vocabulary learning (Excerpt 33), and seeking practice opportunities (Excerpts 30 and 31). Evidence was also found of the use of self-regulating capacity in vocabulary learning (Excerpt 38), motivation (Excerpts 42, 43, 44, 47, and 48), and self-motivation (Excerpts 49, 50, 51, 52, 54, 55, 56, 60, 61, 63, and 66). Furthermore, the learner who used the most kinds of strategies was a girl in grade 3, which implies that even the youngest language learners can be strategic in vocabulary learning, i.e. strategic learning is not a characteristic only of older and more experienced language learners. The case study of this language learner is presented after the discussion of age-related differences between the

age groups. The large range of strategies used by the youngest learners, who started learning EFL four months or eighteen months before the investigation, implies that strategic learning can develop right at the beginning of language learning.

### ***Age group 2: grades 5 and 6***

Learners in this age group reported their use of strategies besides repetition. One learner grouped words (Excerpt 16), another one used mental pegs (Excerpt 21), a third used mental and visual representations, and lexical inference (Excerpts 25, 27, 29), a fourth learner planned to learn new strategies to make learning words faster (Excerpt 33), and a fifth used self-motivation (Excerpt 64).

However, based on the interview data, no important difference can be mentioned in the strategy use of this age group compared to the younger or older learners. On the one hand, this can be because there is no considerable development in the metacognitive awareness and language proficiency of this age group compared to the younger learners, and, on the other hand, the qualitative data may not be adequate to measure minute differences in strategy use. A more detailed quantitative analysis in the 3<sup>rd</sup> phase of the research elucidates the strategic behaviour of this age group.

### ***Age group 3: grades 7 and 8***

The oldest children participating in the interviews reported the use of a number of strategies, as well. Nevertheless, repetition seems to be the strategy basically employed by this age group, just like by the other two age groups in this research. ‘Asking for help’ as a social strategy, however, seem to disappear with age, i.e. learners in grades 7 and 8 do not ask anybody to learn with. The reason may be that they became metacognitively mature in the sense that they had learnt how to learn and were able to direct their strategic vocabulary learning. Another possible explanation is that parental assistance ceases because parents focus on other subjects or they are not proficient enough in English to provide constructive help, or simply they believe that their children succeed without their support.

Attention must be drawn to interview 11 (Excerpt 13), in which the learner speaks about how she supplemented the strategy of verbal repetition with the use of the mechanical technique of putting dots next to items more difficult to memorize. She said that she did not do it before, but considered her learning more effective by using this strategy. Her answer

implies that strategy use develops and becomes more meticulous with age. She also said that learning vocabulary was more difficult to her in the past and is easier now. This response implies that she developed strategies which made vocabulary learning more effective for her. Learners in this age group used self-regulating strategies for learning vocabulary (Excerpts 39, 40, and 41), and learners with the highest level of language awareness (Excerpts 71, 72) were also in this age group.

These findings suggest that there is a certain change in the use of strategies in the long run and learners with more experience may alter their strategy use in order to be more effective in vocabulary learning. One of the two case studies presented and analysed in the next section is based on the interview conducted with a female learner in grade 8, who also seemed to be strategic in vocabulary learning.

#### **4.1.5 Case studies**

In this section two case studies are presented in order to provide a more comprehensive picture of individuals' strategic vocabulary learning, which can add on the qualitative data analysed by grouping the strategies by types. The case studies are based on the semi-structured interviews which were conducted with the most strategic language learners belonging to age groups 1 and 3. The reason why I decided to make case studies of strategic learners' interviews and disregard less strategic learners was simply that only the interviews conducted with strategic learners provided enough data for this kind of analysis.

##### **Case study 1: Year 3, female (Interview 1)**

This interview (Appendix 4.1) portrays how a successful pupil learns EFL in the lower section of a primary school in Hungary. The third year girl started to learn English four months before the interview was conducted. What is prominent at the first sight is that she employs a variety of strategies for learning vocabulary. She provides evidence for vocabulary learning both in school and out-of-school settings, out-of-home settings meaning home for her. At home she prefers learning with someone, and her confidence is based on her cooperation with her parents. Learning vocabulary together with her parents is based on memorizing wordlists in an L1 to L2 direction, i.e. the mother says the Hungarian word and the pupil has to say the English meaning. This strategy is in the productive direction of vocabulary learning, which helps productive recall (Ellis & Beaton, 1993). When she has difficulties in pronunciation she

is given some help, but when they study together the decision whether she has learnt or knows the vocabulary is based on her mother's judgement. Besides the verbal repetition with her family members, she repeats words visually and in writing, i.e. she uses her imagination to represent the meaning of words, and she writes words down more than once, employing the strategy of written repetition. Besides studying with her parents, she employs other out-of-school activities to improve her vocabulary. She listens to music and tries to guess the meaning of unknown words, and she also looks up the meaning of new words in an online dictionary. The use of a combination of strategies contributes to successful vocabulary learning (Fraser, 1999).

The pupil also reported how vocabulary is learnt at school, and how teaching techniques help vocabulary learning. At school the pupils write down the new words in their vocabulary book when they appear and if they appear after some time in a different context, they write them down again. They are provided with examples to learn how to remember meaning, and use a printed dictionary to find information about vocabulary. They also group words which belong to the same subject area, such as Christmas and animals. These teaching techniques are mirrored in the girl's learning at home.

This pupil is motivated to learn EFL in general and vocabulary learning in particular. She is aware of the usefulness of knowing English to pass a language exam or to go abroad. Her motivation is intrinsic, she is interested in vocabulary learning, likes new things and the challenge of learning new vocabulary. Although she reported some difficulties in connection with learning vocabulary, she is able to locate the problem and to override the difficulty. She asks for help if she finds something difficult and when she wants to overcome her anxiety before taking a word test at school. She can therefore be said to be self-sufficient in vocabulary learning. She also feels efficient in learning new words, describing herself as a successful language learner. The finding that she could recall a variety of strategies she uses to learn vocabulary and could describe the way she learns testifies to the conclusion that she is metacognitively aware of her language learning.

To summarize, she uses a variety of vocabulary learning strategies, she is motivated and efficient in learning vocabulary, puts creative effort in her learning, and, thus, she is a strategic language learner.

## **Case study 2: Year 8, female (Interview 11)**

This interview (Appendix 4.2) also gives a picture of a successful language learner. She uses a number of strategies for learning vocabulary. When she was asked how she memorized words she also reported learning wordlists. However, she said that she changed this strategy and supplemented it with the use of a mechanical strategy of putting dots next to words, which helps her sort out the vocabulary she had learnt. She feels that learning wordlists has become more successful this way. She also learns whole sentences in English, so she learns words in context. She not only memorizes the sentences but first transforms them to be true for her. Manipulating the context is a strategy that involves creative effort on the part of the language learner. She also reported learning the topics for the language exam, which implies that she learns the words not only at sentence level, but in a broader context, as well. If she does not know the meaning of a word she looks it up in the wordlist that belongs to the book, or asks the teacher. She also looks up words in an online dictionary and in a printed dictionary, and in order to learn the pronunciation of the words she studies the phonetic transcriptions. When she learns wordlists to memorize meaning she covers either the L1 or L2 word, i.e. she follows both directions, but says that if the Hungarian word is covered it is more difficult, since it is more difficult to recall than to understand meaning.

This learner controls the environment before starting to learn English. She consciously creates the best conditions for her to learn. She asks her relatives to turn the TV down, goes into her room, and listens to quiet music, which helps her concentrate. She also studies with her grandmother in order to avoid silence and to be able to ask her if she does not know something. After learning the vocabulary she studies something else, and only after she has learnt everything, does she relax, as a reward. Although she feels anxious about being careful not to make mistakes when she has to speak, she is aware that learning more can help her challenge her apprehension of communication. Although she does not like learning words, she does so, and feels effective in retaining vocabulary. She plans to learn more English by reading English books. She watches films with subtitles. In addition, she employs this strategy in both the productive and receptive modes, i.e. she watches films with English soundtracks and English or Hungarian subtitles.

To sum up, this learner is motivated to learn EFL and uses a variety of strategies for learning vocabulary. She employs social strategies: she learns together with her grandmother, watches films with subtitles with her mother, and goes to a private teacher who helps her preparing for a language exam. Although she uses repetition to memorize vocabulary, she also



learns words in sentences and in texts, so she makes use of language context. She is aware that out-of-school opportunities help her learning English vocabulary, and she uses or intends to use these opportunities. She regulates her environment and metacognitively controls her vocabulary learning. All in all, she gives the impression of being a strategic and self-regulated language learner.

### **Comparison of the case studies**

In these case studies I have analysed interviews that were conducted with a learner in year 3, who was a beginner and had started learning English for four months, and an 8<sup>th</sup> form pupil who has been learning English in a school setting for six years and together with a private teacher for two years. Given the difference in ages, therefore, a comparison of the two interviews will provide an example of how strategic language learning can change with age and proficiency level.

Both learners were motivated to learn EFL and reported using a number of strategies for learning vocabulary. They both used social, cognitive, memory, and metacognitive strategies. They employed lexical processing strategies, i.e. they used both inference and dictionaries to learn words. They exploited out-of-school opportunities to learn more words.

However, the way they used these strategies was a bit different. While the younger pupil employed the social strategy to learn wordlists together with her family members, the older learner used social interaction to ask for help and to learn more. They both applied repetition for memorising word meaning, which seemed to be a core strategy for both learners irrespective of age and proficiency level. However, the older learner supplemented verbal repetition with employing a mechanical strategy. Also, their out-of-school vocabulary learning was somewhat different. The younger pupil reported listening to music in English, and the older pupil expressed her intention to read books in English, and she watched films with in English with English subtitles. These strategies are really useful, because from the informal, enjoyable tasks learners are able to learn considerable amounts of vocabulary (Milton, 2009; Józsa & Imre, 2013), and to exploit opportunities for learning if they are autonomous and self-regulated language learners (Csizér & Kormos, 2012). In watching films and reading books in the target language, however, only learners with a relatively high volume of vocabulary can succeed, which explains why only the older learner reported using these activities.

In sum, what is similar in the vocabulary learning of the two learners is that they are motivated to learn English vocabulary, use a number of strategies, and are metacognitively aware of their learning process. In addition, they are able to control their learning, and, thus, both of them are strategic and self-regulated learners. These are also the characteristics of successful language learners. The way they employ the strategies and manage their learning represents age-related differences. The strategies used by the older learner went through some changes, became more refined, and were supplemented and combined with other strategies. All this implies that the strategic acquisition and development of the foreign language is more likely to be influenced by the level of proficiency than the age of the learner.

#### **4.1.6 General discussion for Phase I part 1**

The most important finding of this part is that primary school pupils are engaging in a wide range of strategies across all the age groups and these strategies could be classified from the framework created.

The primary purpose of the interviews was to find out what kinds of strategies YLs use to learn vocabulary, and the qualitative analysis yielded very promising results (Tables 5, 6, 7). It can be stated that YLs use a variety of strategies to learn vocabulary. Their vocabulary learning strategy use is congruent with the findings of Schmitt's (1997) studies and Oxford's (1990) classification schemes, i.e. young learners use a number of VLSs belonging to the broader categories of cognitive, memory, social and metacognitive strategies, although they seem to take advantage of certain ones more than others.

With the exception of some, learners seemed to be aware of their use of strategies, i.e. they were able to verbalise their language learning process and to report what they were doing when learning vocabulary. It means that they, including the youngest respondents, were metacognitively mature enough to be able to provide sufficient data on their language learning process. This finding greatly contributed to the execution of the whole research. Furthermore, the focus on awareness in strategy use highlighted two aspects of learners' awareness. On the one hand, the examples indicate that there are learners who are more conscious in their use of strategies than others and, on the other hand, that there are some strategies, which seem to be more consciously used than other strategies. While learners seem to be aware of the use of certain strategies, for example, of the use of verbal repetition (Excerpt 71) and of seeking practice opportunities (Excerpt 72), some of them do not consider strategies, such as learning

with someone (Excerpt 68), grouping (Excerpt 67), or learning from playing computer games (Excerpt 70) to be language learning strategies. There must be external as well as internal reasons for this behaviour. Externally, the lack of strategy instruction can prevent learners being aware of strategy use, and internally, learners seem to be aware of those strategies the use of which demands certain effort or manipulation. Using computer games, for example, usually an effortless activity regarding language learning, while memorizing the meaning of new words with the help of either verbal repetition or employing mental imagery requires a degree of effort from the language learner in the form of mental activity. As for age-related differences and awareness, these examples also suggest that learners in grades 7 and 8 are more conscious about using strategies than their younger peers, so it can be supposed that there is a certain development with age in the awareness of using strategies for vocabulary learning. This result supports the view that metacognitive awareness gradually improves with age and proficiency (Hacker, 1998; Rubin et al., 2007).

Another important finding is that strategic vocabulary learning seems to change or develop across ages, i.e. the strategic behaviour of learners in grades 3 and 4 was found to be different from learners in the other two age groups. The youngest learners under investigation seemed to apply repetition strategies to a great extent, and relied on assistance and cooperation more than older learners. Social strategy use seemed to embrace their whole vocabulary learning process, i.e. learners preferred learning together with somebody in their close relationship, and they also viewed their language teacher as a source of information. However, it appeared that many of them learn words with the help of non-English speaking parents, who can help them at the beginning stage of language learning, but may not be able to provide assistance at a higher level.

At the beginning of this chapter, I pointed out the strategy use of some language learners who participated in the interviews. Although, as I have stated, presenting the strategy profile of individuals and illustrating the frequency of strategy use were beyond the scope of this qualitative investigation, it became obvious that there were high and low strategy users among the participants. Interestingly, the first three most strategic pupils belonged to the first age group. A girl in grade 3, who seemed rather strategic in learning vocabulary, gave the highest number of examples I was able to quote. The other two high strategy users belonged also to age group 1. Contrary to this finding, there were interviews from which I managed to quote only one or two examples. Only one example was quoted from interviews 4, 11, 12, and 21, which were all conducted with learners in age group 3. The fact that age-related

differences can occur sustains the need for investigating strategy use across the ages and to support the qualitative information by quantitative data.

As the results indicate, a number of learners reported using of rote learning strategies, such as memorising wordlists with their L1 translation, when they wanted to learn a new word. Although repetition strategies were the most commonly reported strategies among the learners interviewed, and these strategies seemed to infiltrate into the whole learning process of the primary school pupils, they also reported the use of a wide range of other strategies. Nevertheless, this finding supports the claim that “there is a set of VLS that can be considered core VLS and that are applicable in various learning contexts” (Pavičič, 2008, p. 144).

Another important outcome of this part of the research was that YLs reported applying a strategy, called *mental peg*, which is an association strategy that demands a high level of cognitive effort, and thus can effectively support vocabulary learning (Schmitt, 1997). Data also suggests that the representation of this strategy may depend on the individual learners’ previous language knowledge and on the metacognitive capacity of being able to verbalize the existence of this strategy.

The purpose of this part of the research was not only to find strategies language learners use when they learn vocabulary, but also to put strategy use in a broader framework and set-up a way of classifying young learners’ strategic vocabulary learning. In this framework various aspects of language learning must be discussed which fit into the concept of self-regulated language learning. Therefore, I intended to classify and analyse the strategies primary school pupils used for learning vocabulary and to identify certain patterns of strategic vocabulary learning. Students did not only employ a relatively large set of strategies for language learning, but were also found to manage their learning activity. Many appeared to be motivated, applied self-motivational strategies to maintain motivation, and utilized their self-regulating capacity for language learning. Based on these findings, it can also be stated what Tseng et al. (2006) indicated in their study, namely that language learners must have their inherent self-regulatory capacity which forces them to look for and apply personalized strategic learning mechanisms; therefore, strategic learning can be understood as the utilization of strategies for language learning as well as employing self-regulation in order to enhance learners’ own learning.

As for the classification of strategies, various aspects of strategic vocabulary learning were outlined in learners’ responses. They used vocabulary learning strategies, employed metacognitive and self-motivational strategies, and utilized self-regulatory capacity for language learning. Besides using a number of strategies primary school pupils seemed to be

motivated to learn words, though their motivation strongly related to their general motivation and attitude to language learning. Data suggests that participants were self-motivated as well, since they were satisfied with their utilization of strategies and with their language learning effectiveness and outcome. Moreover, they considered themselves to be skilful in learning English vocabulary, they said they could learn a lot of words at the same time and could remember them for a long time. Although they identified some difficulties in language learning, most of these difficulties can function as part of the natural learning process, and, therefore, they do not hinder, but rather support language learning in the long run. Additionally, some learners were encouraged to find solutions to override these difficulties (Excerpts 54–57). Anxiety was also present in young learners' vocabulary learning, and was entirely related to test anxiety. Unfortunately, only one learner reported reducing anxiety (Excerpt 49) which tends to embrace the process of vocabulary learning, as well.

The outline of the categories of strategy use that has emerged from children's responses was another important finding of this part of the research. This structure greatly resembles the model of older learners' motivated vocabulary learning (Tseng & Schmitt, 2008), since the main constituents of the model can be identified in young learners' strategic vocabulary learning as well. Compared to the categories of older learners' motivated vocabulary learning, the main constituents of young learners' self-regulated vocabulary learning (young learners' SRV learning) that have emerged in this part of the research can be presented in the following way:

1. Vocabulary learning strategies
2. Metacognitive behaviour in vocabulary learning
3. Motivation
4. Self-motivation:
  - Initial appraisal of vocabulary learning experience (IAVLE)
  - Post-appraisal of vocabulary learning tactics (PAVLT)
5. Self-regulating capacity in vocabulary learning

The difference between the two lists of categories can be due to data collection. Young learners' mastery of vocabulary learning tactics and their vocabulary knowledge (in Tseng & Schmitt's model, 2008) were not addressed by the personal interviews. Nonetheless, it is clear from the participants' responses that they do master certain tactics in vocabulary learning, and since they apply a variety of strategies in language learning, and have been learning English for at least half a year, they must have a certain degree of vocabulary knowledge. These issues

were simply beyond the scope of this investigation. However, metacognition, another essential aspect of language learning, was addressed and the inquiry yielded promising data.

In view of these categories, young learners employ strategies of IAVLE and PAVLT to learn L2 vocabulary, i.e. they use different kinds of self-motivational strategies. Since the items and categories of young learners' SRV learning were primarily based on the interview results, some of the items were different in comparison with older learners' self-motivated language learning (Tseng & Schmitt, 2008). The strategy of *overriding difficulties* emerged as a constituent of vocabulary learning and was added to the category of self-motivation composing an item of IAVLE, since difficulties can considerably influence self-efficacy beliefs. Furthermore, PAVLT was supplemented with the element of *self-rewarding*, which seemed to vigorously facilitate young learners' vocabulary learning, but *helplessness*, a component of Tseng and Schmitt's (2008) model, did not occur in young learners' reports on strategic vocabulary learning, and thus was not investigated.

In sum, besides self-motivational strategies, YLs claimed that they employed self-regulating capacity in vocabulary learning and used a variety of VLSs, suggesting that they were strategic in learning vocabulary. All in all, the conclusion can be drawn that the YLs taking part in the investigation learnt vocabulary in a strategic manner, applied a number of strategies consciously, their metacognitive thinking and understanding were mature enough to take part in a research, and more importantly they were self-regulated learners who were aware of their achievement in language learning. Consequently, the participants' strategy use provided evidence for most of the categories the literature suggests, and, thus, a firm base to set up the main categories of young learners' strategic vocabulary learning.

#### **4.1.7 Summary of Phase I part 1**

Two of the most important findings of the interview part are the outline of categories that has emerged from children's responses and the description of the use of individual strategies. The structure of young learners' strategy use greatly resembles older learners' structural equation model (Tseng & Schmitt, 2008), since the main constituents of the model can be identified in young learners' strategic vocabulary learning. Accordingly, many YLs appeared to be motivated, used self-motivational strategies, employed a variety of VLSs, the metacognitive capacity of many seemed to be mature enough to govern both their strategic and general learning behaviour, and they seemed to be self-regulated language learners. Analysing the examples by age groups shed light on some tendencies of development in both the self-

regulating and metacognitive capacity (consciousness) of young learners, which are essential factors in self-regulated language learning.

However, all these findings need further support to make sure YLs do learn vocabulary in the way they reported. Therefore, on the one hand, data that is not based on their self-report should be collected by observing their learning activity, and since the qualitative data reflects the opinion of some language learners only, young learners' strategic language learning should be quantitatively assessed, and clarification sought as to whether they really use these strategies in practice or not, and, if so, as to how effectively they use them. In the following sections (from 4.2 to 6.4), I intend to highlight these issues.

## **4.2 Phase I part 2: Collecting data by observation and retrospective interviews**

### **Introduction**

In this part of the research strategic vocabulary learning has been explored by the means of classroom observation and retrospective interviews. The observation is expected to explore strategies that may not be discovered by personal interviews either because a particular strategy is beyond the scope of the questions or because the respondents are not aware of the use of a certain strategy or that they fail to notice its existence or manifestation. The retrospections aim to reveal learners' thinking about their use of strategies. Therefore, the combination of these methods functions as a complement of the interview method and serves to confirm the interview data.

#### **4.2.1 The goal of classroom observation**

Minimal goals were set up due to the nature of strategies. Since most of the strategies operate at a cognitive level, especially those that represent higher mental processes, they cannot be observed. This means that only those strategies whose application is visible can be observed. Therefore, when research into strategies began about three decades ago, although, instruments of observation were applied, they did not provide useful results (Cohen & Aphek, 1981; O'Malley at al. 1985; O'Malley & Chamot, 1990). However, if their goal is to explore observable strategies, they may provide useful instruments, since their "main advantage is the high degree of objectivity" (Pavičič, 2008, p. 84). Moreover, if such instruments are used in

combination with retrospections recorded immediately after the observation, potentially valuable data can be obtained.

Accordingly, the most important goal of this investigation was to meet pupils in a natural classroom setting where they actually learned, and to observe the strategies and self-regulating mechanisms they used to learn vocabulary with the aim of making certain they learnt vocabulary in the way they reported it. To satisfy these aims, the following issues were addressed in this part of the research:

1. What kind of observable strategies do young learners use to learn vocabulary?
2. What aspects of vocabulary do children keep in mind when learning words?
3. How do they perceive their strategic vocabulary learning?
4. To what extent are they self-regulated language learners?

#### **4.2.2 Method**

##### ***Participants and setting***

The classroom observation was carried out in the same two primary schools as the semi-structured interviews. The participants (n=19) were observed in their regular afternoon study-circle where they were expected to learn their homework for the next day. The activity of pupils was observed in three different groups based on the arrangement of the study-circles and on the age groups under investigation. The learning activity of eight children was observed in grades 3 and 4, six in grades 5 and 6, and five in grades 7 and 8, respectively. A relatively low number of participants were involved in each group, because the activity of more learners' would have made it difficult to observe and taking notes would have been impossible during the process. The learners stayed in their natural school setting and performed the common activity of learning unknown words and expressions in English.

##### ***Procedure***

In each group first the volunteers were informed about what they were expected to do and they were asked to write down the words and expressions (Appendix 5.1) after hearing them. While they were learning the words and expressions, they were provided with help for learning the words. Finally, they were tested on what they had learnt. The whole process was recorded with a digital voice recorder.

The pupils were allowed to do whatever they wanted in order to learn the words and expressions. They could turn to the researcher, ask their mates, use a dictionary or employ any



other strategies they needed to learn the vocabulary. After informing the learners about their task, the researcher dictated the words and expressions which were recommended by their English teachers, and, thus, reflected the grammar structures pupils had actually learnt and used in class. All the words and expressions had appeared in some of the morning English classes (e.g. ‘well done!’) and formed the learning objective in the afternoon session. However, they had not been written in the children’s vocabulary books which document the words pupils have learnt or have to learn. In school practice, words written in the vocabulary book are considered as new words to be learnt. Following this practice, I set the task of learning the wordlists. That pupils had met with the words was reflected in their learning; some knew how to spell the words, based on their general knowledge on spelling English words, and some had some previous passive knowledge of the words, but may not have memorized their meaning until the time of the learning task. Writing down the words was based on dictation because I wanted to investigate what aspects of vocabulary knowledge learners feel important to discover and what they do to find information about these aspects. Also, I wanted to see how they coped with writing down the words, and to collect strategies on how learners explore form (written and oral) and meaning. Based on Miller’s suggestion (1956), participants in each group had to learn 7 vocabulary items (words, expressions, or short sentences) altogether. While the learners were writing down the vocabulary, they had the opportunity to ask for information. Having written down the items, pupils were asked to learn the vocabulary in about 10 minutes and were informed that they would be tested after the procedure. Testing was announced to make children take their task seriously. While children were learning, the researcher was observing their activity, took notes and audio-recorded the whole process. Having learnt the vocabulary they wrote the word test, and retrospective interviews were conducted in the focus groups.

In the next section, first, the results of the observation are summarized based on the notes and recordings which were made, and, then, children’s retrospections are presented and analysed.

#### **4.2.3 Results of the observation**

The most important outcome of the observation of the vocabulary learning task was that young learners indeed used strategies for learning vocabulary. Pupils performed a variety of strategies to learn the words. One or two pupils in each age group *used a dictionary* that was available for all of them to check the spelling and discover the meaning. They did not check

the pronunciation, either because they did not know or were not taught the phonetic symbols, therefore, they asked the researcher or their classmates for correct pronunciation. The children *supplied the Hungarian meaning* of words, which is an example of how teaching techniques penetrate into learning strategies. The pupils looked at each other's exercise book to make certain they wrote the words correctly. When starting to memorize the vocabulary, they remained silent and either followed the words with their eyes in the order they wrote them down or closed their eyes and tried to concentrate. Half of the pupils were saying the words quietly for themselves, i.e. they applied *verbal repetition* as a strategy. Two learners used *mechanical techniques*, such as *drawing lines* to separate the seven items or squared them and others *drew pictures* next to the words illustrating the meaning (Appendix 5.2). *Creating visual images* of new vocabulary items is a strategy that generates visual representations, and, thus, can formulate *mental pegs*. Mental pegs are supposed to highly facilitate language learning, since they build clear links between meaning and form. The use of the strategy of drawing pictures to illustrate meaning is a significant finding because this strategy can create transition between observable and non-observable strategies. As a part of the learning process, some pupils practiced the vocabulary together with their friends and they quizzed each other. This *social strategy*, as the interview results indicated, is quite common in independent settings, where usually the mother helps learning and quizzes the child on the words.

The learners seemed to follow the *spelling – meaning – pronunciation* formula when learning the vocabulary. This order, however, can be optional since it is determined by the task learners have to do. Since in this investigation, the words were dictated, participants had to write them down properly; therefore, they wanted to know the spelling first. Table 8 presents the results of the classroom observation.

Table 8: Results of the classroom observation

Observable strategies used by young learners					
Social strategies	Translation	Metacognitive strategies	Memory strategies	Cognitive strategies	Self-regulation
asking for meaning	supplying Hungarian meaning	confirmation of meaning and/or spelling:	concentrating by closing eyes	using mechanical techniques:	working quietly
asking for spelling		checking from others' work	repeating words quietly to self	drawing lines and squaring to separate	performing the task
asking for pronunciation		dictionary use: checking meaning, checking spelling	repeating words in order	language items, drawing pictures	concentrating on the activity
practicing with a partner					being engaged in the activity
					completing tests

All the observable strategies listed in this table represent vocabulary learning strategies belonging to the groups of social, memory, cognitive, and metacognitive strategies, and self-regulating behaviour. Translation is presented in a separate column because learners used this strategy in social interactions, and when they were memorising the meaning of the words.

#### 4.2.4 Retrospective interviews

The retrospections were conducted to highlight what young learners could recall about their strategic vocabulary learning right after completing the task. The goal of the retrospections was to make children verbalize their learning process and explore the use of strategies they would not recall anyway.

After the 10 minutes set for completing the task passed, the learners in the focus groups were asked how they learned the words. The following questions were in the centre of the retrospective interviews:

1. How did you learn the words and expressions?
2. What did you learn?
3. What was difficult in it?
4. Did you visualize the meaning?

Question 1 intended to draw learners' attention to their learning procedure in order to make them recall both visible and invisible strategies they used for learning the vocabulary and to discover possible links between some of the strategies. The second question investigated the aspects of vocabulary pupils consider important to learn in order to complete a certain school task. Question 3 aimed at difficulties which occurred when learning vocabulary and the last

question inquired about the use of any non-observable strategy that appeared separately or functioned as a complement of an observable strategy.

## **Results and discussion**

In this section pupils' responses given to the four questions are summarized briefly. The excerpts can be found in Appendix 5.3.

1. In Excerpts 1–17 children answered the question of how they learnt the words and expressions. In the first 7 excerpts they said they learnt the words and expressions in sequence by reading, saying and parroting them, i.e. they used verbal and visual repetitions to memorize words. In the following four excerpts (8–11) pupils referred to the spelling of words. Since they had to write the vocabulary down they were supposed to have an idea of how to write the words, and they were aware of this expectation. After having written down the words two pupils repeated the words alphabetically in English. The pupil in Excerpt 10 only in her mind, and another one (Excerpt 11) is quietly to herself. Although this strategy could help them in learning the correct spelling of the words, it can hinder or delay learning the right pronunciation. Nevertheless, Hungarian learners of English do apply this strategy, because Hungarian orthography is based on alphabetic writing and it can be difficult to learn a language that has different rules. Also, the reason for this can be that phonetic symbols are not taught as part of the school material, therefore learners do not learn how to use them. Since they needed some cues for memorizing the written form, they applied the strategy of alphabetic repetition. Some pupils (Excerpts 12 and 13) used the repetition strategy of covering either the Hungarian meaning or the English form.

Hitherto all the excerpts referred basically to the use of verbal repetitions. The fact that students in the retrospections mainly reported the use of this strategy suggests that they use it as a key strategy for learning vocabulary. This finding corresponds with the results of the semi-structured interviews (see Excerpts 1–6).

A learner from the second age group reported the use of a more complex strategy (Excerpt 14). She put the word in a sentence, because the meaningful context, as she argued, helped her memorize the meaning of a word. Another learner (Excerpt 15) used drawing (Appendix 5.2) to illustrate the meaning of words and was aware of the benefits of applying this strategy for learning vocabulary. Since the use of mental pegs came up in the interview data as well, this strategy is involved in the structured questionnaire.

Two pupils in the retrospections also summoned up their language learning in independent settings. The learner in Excerpt 16 evoked the use of an LPS strategy, lexical inference. He connected the use of this strategy to vocabulary learning in the language classroom, which helped him to understand the language in an independent setting. This example is a sign of the connection and transfer of strategies between school and independent settings. Also, this pupil (just like the pupil in Excerpt 17) sought practise opportunities outside the classroom, which activity functions as a metacognitive strategy and provides evidence for language learning motivation. Children's report on the way they learnt the words supports the interview data, and thus verifies the functionality of the questionnaire.

2. Pupils were asked to verbalize what aspects of vocabulary they learnt. The learners (in Excerpts 18–21) reported learning the *spelling – meaning – pronunciation* formula when they come across a new word. The order of learning these aspects, however, seemed to be influenced by practicality or the need for knowing a word. Even so, these three aspects of word knowledge seem to go hand in hand when learning new vocabulary.

3. The third question asked learners what they found difficult in learning the vocabulary. The answers referred mainly to spelling and pronunciation. The finding that pupils in general did not mention they had difficulties in learning the meaning can be due to the immediate assessment, in which learners could rely on their working memory capacity. Since the goal of the test was to encourage learners to learn the vocabulary, the assessment was immediate, and based on recalling the spelling and meaning of the items, i.e. the pupils had to write down the words and expressions together with the Hungarian meanings. The pupils were asked to learn no more than 7 vocabulary items with the intention of helping them store the information. Our pupil (Excerpt 22) pointed out that it was difficult to memorize the meaning and spelling of all the words at a time. Given that they had to memorize both the spelling and meaning to be able to write the test, they could have found it difficult to learn these aspects of vocabulary knowledge. However, one learner found it difficult to learn the pronunciation, as well. A very important finding is that some pupils (in Excerpts 25 and 26) not only located the difficulty, but reported a strategy that helped to solve this difficulty. Since this strategy use facilitates learners' self-efficacy, it was included in the questionnaire among self-motivational strategies.

4. The fourth question asked pupils whether they visualized the meaning of the vocabulary. While some learners said they tried to visualize some of the words and expressions (Excerpts 28 and 29), others reported (Excerpts 30 and 31) they tried to visualize everything.

Excerpt (32) illustrates the combination of the use of an observable (drawing) and a non-observable (mental peg) strategy. First, it was observed that the pupil drew pictures (Appendix 5.1) to show the meaning of the words, and, then, in the retrospective interview (Excerpt 15) he said he drew pictures of the vocabulary to help memorizing the meaning. These excerpts demonstrate how observable and non-observable strategies can come together in a way that an observable strategy through mental representation can serve a higher mental activity, which helps in learning the meaning.

#### **4.2.5 Discussion of Phase I part 2**

Looking at the findings of the observation and retrospective interviews, it can be stated that young learners used a number of observable strategies to learn vocabulary. The most commonly applied strategy was verbal repetition, which seemed to function as a core vocabulary learning strategy just like in the interviews. The use of this strategy generates learning the right pronunciation, and written repetition assists the learning of spelling. Using mechanical techniques, such as lines to separate items and drawing pictures help pupils in learning meaning. Accordingly, when learners come across new vocabulary, they want to understand it. They are eager to find out the meaning, and to learn how to say and write the words.

As the learning task required, the participants attempted to learn the *spelling – meaning – pronunciation* combination of unknown words, i.e. YLs considered these aspects of vocabulary as word knowledge. Although two learners in age group 3 reported inserting the words in a sentence or completing a sentence to be a meaningful unit, they applied this strategy in order to facilitate learning the meaning, and they did not seem to consider these as strategies to learn the form.

In the retrospections, YLs were willing to recall how they learnt the words and to share the strategies they applied. They seemed to be satisfied with their language learning, and perceived their strategy use efficient and their language learning successful. They were able to recall a number of strategies, which indicates their metacognitive knowledge and understanding about the language learning process and their awareness of what they are doing to learn vocabulary.

During the observation, all the children were disciplined, they worked quietly, performed the exercise they were asked to, concentrated on what they were doing, were engaged in the activity, and wrote the word test, i.e. they all behaved collaboratively. These

behavioural patterns are typical in an average classroom context and in this research it can be seen as evidence for young children's self-regulated behaviour in vocabulary learning.

#### **4.2.6 Summary of Phase I part 2**

The findings of the observation and retrospective interviews coincide with the results of the semi-structured interviews (Tables 5, 6, 7), and most importantly justify and support the pattern of young learners' SRV learning. Consequently, this part of the research can be seen as a corroboration of the semi-structured interview results.

Learners use a number of observable and non-observable strategies to learn vocabulary. Evidence was found in this part of the research that the use of observable strategies establishes the appearance of cognitively most demanding, non-observable strategies and calls for a deeper representation in mind. An example of this is drawing pictures to depict meaning instead of adding Hungarian translation which facilitates mainly the use of rote learning strategies. Observable strategies, such as pictures can serve the deeper mental representation of meaning. The retrospections highlighted that learners were aware of the strategies they used which is an indication of their metacognitive awareness and self-regulation. Therefore, I can conclude that the results confirm the findings of the semi-structured interviews.

#### **4.3 Summary of Phase I**

In the first phase of the research qualitative data was collected to get information about young learners' strategic vocabulary learning. The findings indicate that a variety of strategies are employed for learning vocabulary and these strategies fit into the classification based on the theoretical considerations. Although, it has been shown that YLs are strategic in vocabulary learning, still little is known about how these strategies are used across ages. Therefore, the strategy use of the age groups is characterized in the following phases of the research. Moreover, though the results are promising, they must be supported by asking further participants about strategic vocabulary learning, and measuring their strategy use in a quantitative study. Therefore, in the next phase of the research an instrument is proposed, developed, and tested which is used in the final phase to quantitatively measure the age-related differences of young learners' self-regulated strategy use.

## **CHAPTER 5**

### **PHASE II: COLLECTING DATA ON YOUNG LEARNERS' SELF-REGULATED VOCABULARY LEARNING: CREATING AND DEVELOPING THE QUANTITATIVE INSTRUMENT**

#### **Introduction**

In this phase of the research, a series of steps are described which lead towards the goal of creating the quantitative instrument.

Having shown that learners were strategic in vocabulary learning, a structured questionnaire was created based on the items and categories of young learners' SRV learning. In this phase, first, the structured questionnaire and its validation process are described, and interview data is collected by the structured questionnaire. Then, this data is processed by collecting learners' responses on the items and categories of self-regulated vocabulary learning, and using learners' wording a quantitative instrument – a Likert-type rating scale – is developed. Finally, the validation process of the quantitative instrument is described in detail. To ensure the reliability of the quantitative instrument, the participants are involved in initial piloting to make sure that each question is clear and answerable for them. After that, data is gathered by the quantitative instrument and the results are analysed by the means of descriptive and inferential statistics. Finally, based on the results and the validation procedures a new instrument is proposed. In this part of the research I intend to find answer to the second research question: Based on the qualitative data collected in the first phase of the research, to what extent can a quantitative research instrument be developed which adequately reflects the underlying qualitative categories emerged, and which young learners of various ages are able to effectively use?

#### **5.1 Phase II part 1: Describing and validating the structured questionnaire**

##### **5.1.1 Describing the structured questionnaire**

Based on the data collected in Phase 1, a two-part structured-questionnaire (Appendix 6) was developed and refined for administration in a focus-group interview. When creating the structured questionnaire I strongly relied on the findings of the qualitative data. The responses



given by the participants were presented and analysed in categories. Based on these categories and relying on learners' answers the questions of the structured interview were formulated.

The first, central part of the questionnaire included questions about learners' strategic vocabulary learning, while the second part asked questions about demographic information. The questions of the questionnaire (n=20), which represent the main categories of young learners' SRV learning, were validated by the focus group interview, the results of which are described in the next section.

In line with the categories which emerged in the interviews the structured questionnaire was created to address the underlying construct of young learners' SRV learning. The categories and the items whose elicitation was primarily addressed are indicated in brackets next to each question in the questionnaire translated into English (Appendix 6.2).

### **5.1.2 Validating the structured questionnaire by a focus group interview**

The goal of the focus group interview was to validate the structured questionnaire created based on the quantitative data by asking a group of potential participants (n=12) to express their opinion about the instrument. Children representing the 3 age groups were asked about the structured questionnaire. First, they had to fill it in meanwhile they were free to ask anything in connection with the questions, and then were asked to comment on the questionnaire.

The focus group interviews revealed that learners, even the youngest ones, were able to make sense of the questions of the open-ended structured questionnaire (Appendix 6.1)<sup>7</sup> and could provide adequate responses. However, certain changes were needed in the wording and in the structure of the questionnaire compared to the original option. These changes involved, for example, paraphrasing in order to gain more adequate answers. A few questions were modified to some degree to make their formulation more precise and understandable to elementary school learners. Additional information was given to some of the questions to make them more accurate. Some changes were necessary to do in the structure of the questionnaire, as well.

More specific changes are listed here. Certain changes were recommended by participants regarding questions 5 and 8, which had to be paraphrased in order to yield adequate answers. Q5 asks 'When you cannot concentrate on learning words, how do you turn your attention back?' instead of asking 'How do you turn your attention to learning words?'.

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<sup>7</sup> The English translation of the questionnaire can be found in Appendix 5.2.

Q8 asks ‘How do you prepare or get ready for learning words?’ instead of ‘How do you start learning words?’.

A few questions were modified to some degree. Their formulation was made more precise and understandable. For example, instead of ‘developing’ (‘fejleszteni’) vocabulary, ‘increasing’ (‘gyarapítani’) seemed to be a better choice in the case of Q12. Accordingly, it asks ‘How would you like to improve your vocabulary?’ instead of ‘How would you like to develop your vocabulary?’

Additional information was given to Q7 (e.g. ‘word test’) and Q10 (‘make yourself understood’). Q7 asks ‘If you feel stressed about learning words (e.g. a word test), how do you get over stress?’ and Q10 asks ‘How much can you express yourself or make yourself understood in English?’

Some changes were necessary in the structure of the questionnaire. A question which elicited similar responses to another question, and, thus, yielded confusing results was eliminated and replaced by a more practical one. The first one of the similar questions ‘How effective do you think you are in learning words?’ and ‘How would you make your vocabulary learning more effective?’ (originally questions 9 and 20) was eliminated. The question, ‘How do you know how many English words you have learnt?’ was integrated in the place of Q9.

## **5.2 Phase II part 2: Structured interviews**

In the second part of Phase II, first, data was collected by conducting structured interviews with young learners by the means of the structured questionnaire based on the items and categories of young learners’ SRV learning outlined in Phase I. It was presumed that the structured interview format would result in learners’ accounts that can be directly used for creating the statements of the rating scale. Then, the data elicited was processed and used to create the Likert-type questionnaire which was supposed to allow for statistical analysis and provide a quantitative measure to assess young learners’ SRV learning in the last phase of the research.

### **5.2.1 The goal of collecting structured data on young learners' self-regulated vocabulary learning**

The dual goal of this research part was to gain structured data on young learners' strategic vocabulary learning by the means of structured interviews which enable the collection of shorter and more accurate answers, and to record what YLs say about their vocabulary learning so as to use their utterances about vocabulary learning strategies in developing the quantitative instrument. Structured questionnaires aim to obtain short but sufficient responses (Szokolszky, 2004); therefore, they can be used to explore respondents' wording on each question. Therefore, the structured questionnaire was used in this part of the research to elicit further strategies based on the main categories YLs apply for learning vocabulary with the purpose of making an inventory of the strategies and record children's wording at each question. Creating a quantitative instrument with wording familiar to YLs was supposed to increase the reliability of the instrument.

### **5.2.2 Method**

#### ***Participants***

Fifteen pupils, who had not been interviewed in the first part of the research, participated in the structured interviews. All the children were volunteers who wanted to share ideas about their vocabulary learning. They gave their consent and their parents had filled in the consent form (Appendix 2.1). Since the whole research embraces primary school pupils from classes 3 to 8, children from these age groups participated in this part, as well. Five children took part from the first age group (3-4 graders), five from the second (5-6 graders) and another five from the third age group (7-8 graders).

#### ***Procedure***

The interviews were carried out in two primary schools at the time of the English lesson in a separate classroom. Each interview was recorded with a digital voice recorder. An interview took 6 minutes on average.

Having conducted the structured interviews, learners' answers on using different strategies were transcribed and the data was classified. The participants' utterances were used as a primary source of information for creating the statements of the Likert-type scale.

### 5.2.3 Results

In this section the results are presented based on the questions of the structured interview. However, instead of presenting all the data, which can be seen in Appendix 7, I want to highlight some interesting issues. Although I rely on some quotations, I did not intend to quote all the answers. Since the questions were designed to elicit items on the categories of strategic vocabulary learning, the structure of young learners' SRV learning is reflected by the results. Consequently, the strategies YLs reported are treated as primary components in each category.

Young learners gave useful answers to the questions and they were able to provide concrete examples in their own words. For example, in question 1 they mentioned motives such as 'going abroad' and 'being able to make themselves understood', 'finding a job which requires English knowledge', and last but not least that 'English is a world language and therefore it is important to speak English'. The semi-structured interview data (in Phase I part 1) also yielded the same results, i.e. the most commonly reported motivation type was instrumental motivation, such as career orientation, travelling, passing the language exam, and other utilitarian reasons.

The second question aimed at eliciting difficulties in connection with vocabulary learning. Some of the children could not report any difficulties, which suggests they considered themselves to be efficient in learning words. Others mentioned that it was difficult to learn the meaning, the pronunciation and the orthography of a word, and that they find some words which contain three or more vowels or consonants difficult to learn. Observation data (Phase I part 2) also reflected on the same difficulties, therefore these results confirm each other.

The third question aimed to elicit information on young learners' anxiety. Though some children indicated that they did not feel anxious about learning words, most of them referred to a certain strategy with which they can override anxiety. Pupils, for instance, 'keep on learning', 'do something else', 'ask somebody for help', 'do something pleasant', or 'think positively'. These strategies can be grouped in three broader categories (Hardi, 2013). Accordingly, they use challenging, avoiding, and lowering strategies.

In answering question 4, there were some children who said they always 'feel like learning', which can be seen as an evidence for a high level of commitment towards learning vocabulary. Others used strategies to motivate language learning. They, for example, 'opened the English book' or 'listened to music in English' when they began learning vocabulary.

Some of them delayed learning words by ‘doing something else instead’, which seems to function as a strategy of postponing harder work.

Pupils metacognitively controlled their vocabulary learning (Q5) by ‘trying to concentrate on the task’, eliminating distracting things, ‘returning back to the task after a short break’, or making demands on parents’ or teachers’ remarks. Children used a number of activities to control satiation and to eliminate boredom (Q6). They did something different when they felt bored with learning vocabulary (eating, drinking, playing, or talking to somebody) and then they turned back to vocabulary learning. Some children said they tried to speed up learning in order to finish it as soon as they can. Pupils controlled their emotions (Q7), as well. Some pupils said they never felt stressed about vocabulary learning, which, on the one hand, can be due to a successfully applied control mechanism, but, on the other hand, can be seen as evidence for using an avoidance strategy. Some pupils say they do not care about stress, which is an indicative of avoidance which can function as an emotion control strategy. Young learners also control their environment (Q8) in order to make vocabulary learning more effective. When they start learning they ‘go into their room’, ‘turn down the radio’, ‘switch off the TV’, ‘sit down and get out the book’ and scan what they have to learn.

Pupils seemed to monitor their vocabulary knowledge (Q9) and consequently had some knowledge of how much vocabulary they knew, i.e. they were able to estimate their vocabulary level by monitoring how many words they had learnt. They employed different strategies for revising the words, and some of them were aware that ‘the more words they know the more sentences they can create’. They were able to evaluate their own vocabulary knowledge. The children expressed their positive attitudes to their ability to express themselves (Q10). This suggests that they were motivated to learn English vocabulary. The fact that they sought opportunities to practice their vocabulary (Q11) and to learn new words was in line with their motivated behaviour. Moreover, YLs intended to broaden their vocabulary (Q12). They wanted to read books in English, to find opportunities to speak more English, and to go abroad to improve their vocabulary in a native speaking environment. Another important facet of young learners’ metacognitive awareness is the construction of how they perceive the aspects of their vocabulary knowledge (Q13). Some pupils reported learning the spelling – meaning – pronunciation formula, which finding corresponds to the results of the observation part.

Pupils memorized words (Q14) by reading or saying them several times. This result supports the claim that repetition functions as a core strategy for learning vocabulary. Pupils also used social strategies (Q15) for learning vocabulary. Young learners employed a variety

of cognitive strategies to learn words (Q16-17). Some were able to infer the meaning of new words for the broader context and from the context of a sentence, and they also looked up the meaning of new words in a dictionary. Pictures were also valuable tools to help learners finding out word meaning. These findings suggest that YLs applied lexical processing strategies which contribute to vocabulary learning. Moreover, they used mental pegs which by creating mental links are supposed to highly facilitate language learning. Pupils reported drawing or visualizing pictures that help them imagine the meaning of vocabulary. Drawing as a visual strategy can contribute to learning vocabulary (see the results of the observation data in Appendix 5). Children also generated associations to create mental links which help memorizing word meaning.

The last three questions (Q18-20) explored strategies that belong to the post-appraisal of vocabulary learning. Pupils used various strategies to reward themselves. They ate some chocolate, listened to music, watched TV, etc. The way YLs judge their effectiveness in vocabulary learning is another vital motivating factor. They considered their vocabulary learning effective, which can imply that they were also motivated to learn words. Pupils also wanted to make learning words more effective by reading books in English and learning more. As for their satisfaction, some learners would not change anything in the way they learn, but others would like to learn more words and learn them more persistently.

#### **5.2.4 Summary**

In this part of the research I presented structured data on young learners' vocabulary learning. Pupils' responses were analysed in the framework of the questions of the structured questionnaire which corresponded to the main categories of young learners' SRV learning outlined in the first phase of the research. It was supposed that pupils' 'own' words or sentences would sound familiar to a bigger population of young learners who fill in the instrument designed to collect quantitative data. However, the main outcome of this part was not only illustrating young learners' wording with the intention of using it for further research purposes but also presenting a systematic grouping of the strategies they reported. The responses given to the structured interview questions showed an overall picture of strategic vocabulary learning, and as it was indicated in the analysis, the answers fell in line with the findings of the previous qualitative research parts. In the next research part the creation and the development of the quantitative instrument is described in more detail.

## **5.3 Phase II part 3 Developing and piloting the quantitative questionnaire**

### **5.3.1 The quantitative questionnaire**

The quantitative instrument developed relying on pupils' answers given to the structured interviews is a four-point Likert-type rating scale (Appendix 8). A four-point rating scale was designed (where 1 means 'I don't agree', 2 means 'I partly agree', 3 means 'I agree', and 4 means 'I strongly agree'), although Pavičič argued that a three-point scale was "more suitable for the primary school level and would give more valid responses" (2008, p. 92) than a scale with more options. I supposed that offering four possibilities would result in more refined answers than using three options, since participants are not offered to take a middle position, but 'forced' to choose between the options. My supposition was supported by the initial piloting of the questionnaire (Phase II part 3).

#### ***The structure of the quantitative questionnaire***

The statements of the Likert-type questionnaire were formulated relying on young learners' answers elicited by the structured questionnaire. Since the structured questionnaire contained 20 questions and in the case of each question the number of different responses was from three to seven (Appendix 7), an instrument with at least 60 different strategies could have been designed. However, a questionnaire with more than 60 items would not fit the cognitive abilities of primary school pupils; therefore, the most appropriate items which represent the wide scale of answers had to be chosen. 55 responses were considered to sufficiently represent the structure of young learners' SRV learning. While constructing the Likert-type quantitative questionnaire one of the main objectives was to maintain a relatively equal proportion between the items and categories. The questionnaire was designed to involve the five categories of young learners' SRV learning: 3 questions elicited motivation, 12 self-motivation, 16 metacognition, 10 vocabulary learning strategies, and 14 self-regulating capacity in vocabulary learning. The arrangement of the categories, sub-categories, and items involved in the quantitative questionnaires are listed in Appendix 9.

As for the organisation of the questionnaire, questions asking for demographic data were put at the beginning since they collect information essential to the analysis. Questions about gender, number of English lessons, number of years spent on learning English, grade, learning other foreign languages, and liking of English were asked. However, in the analysis I

focused on age-differences, thus the question asking pupils' year in school was central to this research.

### ***Initial piloting of the quantitative questionnaire***

Initial piloting targets 'some external feedback' which is indispensable when an initial item pool has been prepared (Dörnyei, 2003, p. 66). In this part, initial piloting involved the discussion of the questionnaire with primary school pupils. Volunteers (n=12), who had not been involved in the first phase, participated from two primary schools. Four children took part from each age group in equal distribution, i.e. two from each class from 3 to 8. We discussed the structure, wording, and relevance of the questionnaire in groups of two. First, pupils were asked to read through and complete the questionnaire and while reading make any kinds of comments that came into their minds. After they filled in the questionnaire I interviewed them about its structure and wording. More specifically, I asked whether they understood the questions, if it was difficult to pay attention to the questions, if using the four-point scale caused any problems, and what their opinion was about the questionnaire.

The statements of a Likert-type questionnaire had to be carefully formulated to avoid misinterpretation and ambiguities. Based on children's own wording taken from the structured interviews, the questions reflected the way they think and act. What made initial piloting promising was that pupils could answer the questionnaire in between 10 to 15 minutes (the youngest needed the longest time), understood all the questions, were able to work with the four-point scale, were willing to share their opinion, and in addition they enjoyed the filling-in procedure. However, based on pupils' comments, I decided to make some changes in some of the questions in order to elicit more refined answers after the alteration.

### ***Alterations after initial piloting***

To what extent the first version of the quantitative questionnaire was altered and improved is described in this section. After piloting the questionnaire one strategy was added and some needed amendments. A vocabulary learning strategy VLS 23 'I just pick up the new words' was added to the pilot questionnaire, because several children mentioned it as an option. Some statements were made more precise, for instance the parts in italics were added to Meta 16 'I know a word if I can always recall it *when I have to use it*', and to SRC 42 'if I am bored with learning words, I do something else instead (e.g. eat or drink, play, *watch TV, etc.*)'. SRC 37 'when I start learning I make calm around me' was added to the questionnaire instead of 'when I start learning I turn off or turn down the TV or radio', because some children said



they were able to learn only when something was on, and thus a less specific statement had to be formulated.

After the initial piloting no more statements needed to be changed, and the structure of the questionnaire remained unchanged; the items that belonged to the same category were left in clusters to make filling it in easier and quicker. However, SRC 48 'I do not feel stressed about learning words' seemed to be a bit elusive. Most of the children said they 'totally agree' with it, nevertheless they previously gave positive answers to the statements that asked them what they did when they felt stressed. When we discussed this phenomenon, they said they did not feel stressed most of the time, but when they did so, they used strategies to eliminate stress. Therefore, this statement was left in the pilot questionnaire to see how it works, but being aware it may need special treatment.

### **5.3.2 Piloting the quantitative questionnaire**

After initial piloting the quantitative questionnaire was piloted with potential participants who represented the target population of YLs involved in the research. In the next section, the piloting procedures of the quantitative instrument are described, which serve here the validating of the questionnaire. Therefore, the procedure is explained in detail, results are discussed, and the final instrument is presented.

## **Method**

### ***Participants and settings***

When data is collected for quantitative analysis the sample should be large enough to reach statistical significance and around 50 participants are needed to make sure the coefficients are significant (Dörnyei, 2003, p. 74). Therefore, young learners (n=80) from the three age groups of two primary schools were involved in this part of the research.

### ***Procedures***

The questionnaire was taken to the same two primary schools where the interviews were conducted, and the English teachers had their learners filled it in during the English lessons. They were informed about the most important steps of the procedure, about the length, the anonymity of the participants, the structure of the questionnaire, and that only one answer must be circled in both parts.

## ***Analysis***

For analysing the data yielded by the four-point Likert-type rating scale on young learners' SRV learning, SPSS Version 20 (Statistical Package for the Social Sciences) was used. All the data, including missing values were included in the analysis of the pilot questionnaire. Several statistical techniques were employed. Descriptive statistics were calculated; means and standard deviations were obtained for the use of each strategy item and category. By the means of descriptive statistics it was shown what the most and least frequent strategy items and categories of young learners' SRV learning were. The items whose occurrence was low and did not fit into any underlying category were considered to be deleted in order to make sure the categories were reliable. To help determining which strategies worked differently, item-total statistics and correlations were calculated. As a result of the statistical procedures the reliability coefficients (Cronbach alpha) were expected to improve for each category and the entire questionnaire.

## **Results**

The results are presented in terms of descriptive and inferential statistics. In the first step the validation process of the questionnaire is described, and then a brief overview of possible age-related differences is provided.

### ***Descriptive Statistics***

The means of the five categories in descending order can be seen in Table 9.

*Table 9: Descriptive statistics of the categories in the pilot study*

	<b>N</b>	<b>Mean</b>	<b>Minimum</b>	<b>Maximum</b>	<b>SD</b>
<b>Motivation</b>	80	3.54	2	4	0.45
<b>Metacognition</b>	80	2.93	1	4	0.31
<b>VLS*</b>	80	2.84	2	4	0.36
<b>Self-motivation</b>	80	2.83	2	4	0.29
<b>SRC*</b>	80	2.77	2	4	0.32

\*VLS = Vocabulary Learning Strategies

\*Self-Regulating Capacity

As it can be seen in Table 9, the mean for motivation was the highest, almost reaching the possible total score of 4, and the means of all the other categories were a bit below the value 3 but still above the mean of 2.5. These relatively high means for the categories can be attributed to the high means of the individual strategies. Although the category of motivation

yielded the highest means its standard deviation was the highest as well, which can be due to the low number of questions. Standard deviation was the lowest in the case of self-motivation, which is an indicative of the most homogeneous category in this sample.

Appendix 10.1 contains the descriptive statistics of the individual items for the pilot study. A closer look at the categories and individual items yielded interesting observations. Here I would like to mention only some of these. First of all, it can be seen that the means, with the exception of four strategies (Meta 06, Meta 08, SRC 40, and SRC 46) were over the mean of 2.5, meaning that YLs reported using the strategies in general. The average score of motivation was higher than that of the other categories, and the strategy with the highest mean (Mot 02 – 3.65) also belonged to this group. The second highest mean (3.56) was given to the strategy of Self-mot 50, despite the mean of the category of self-motivation was only 2.83. Although the average mean of metacognition was the second highest among the categories, the strategies with the lowest occurrence (Meta 06 M=2.33 and Meta 08 M=2.38) belonged to this group.

### *Category analysis*

Table 10 illustrates the values of the Cronbach's Alpha for the categories and the questionnaire. The results of the proposed deletion process can also be followed in this table. In order to ensure the viability of a research instrument it is fundamental to test it for reliability, since the reliability coefficient shows the stability and consistency of the results, which are indicatives of further applicability of the instrument (Szokolszky, 2004). The higher the Cronbach's Alpha, the more reliable the individual categories and the instrument itself are.

When all the categories were included, the overall reliability of the categories was acceptable (0.71). However, with the deletion of the category of motivation it would increase to 0.74. Nevertheless, this change would not be necessary, because analysing motivation and self-motivation as one category, the Cronbach's Alpha of the new category would be 0.45, which is still low, and it would increase to 0.51 with the extraction of item Self-mot 55. Furthermore, the reliability of metacognition and VLS would increase with the deletion of items Meta 07 and VLS 26.

*Table 10: Reliability of the categories in the pilot study*

Category	Cronbach's Alpha	Cronbach's Alpha if item deleted			
		Item	Cronbach's Alpha	Item	Cronbach's Alpha
Motivation	0.49	–	–	–	–
Metacognition	0.65	7	0.69	–	–
VLS	0.46	26	0.51	–	–
Self-motivation	0.33	55	0.41	–	–
Self-regulating capacity	0.14	48	0.31	43	0.40
Motivation + self-motivation	0.45	55	0.51	–	–
Total	0.77	43	0.78	48	0.79

Deleting these items, however, would not increase the reliability of the questionnaire. Based on the results of item-total statistics, the reliability of the questionnaire (Cronbach's Alpha=0.77) would increase only to 0.79 after the deletion of the items SRC 43 and SRC 48, which would result in a considerable increase in the reliability of the category of self-regulating capacity. Further extractions would not result in the increase of the Cronbach's Alpha. Table 11 demonstrates the correlation matrix of the main categories.

*Table 11: Correlation matrix of the categories in the pilot study*

Categories		Motivation	Meta-cognition	VLS	Self-mot
Meta-cognition	Pearson Correlation	0.38**			
	Sig. (2-tailed)	0.00			
	N	80			
VLS	Pearson Correlation	0.15	0.36**		
	Sig. (2-tailed)	0.19	0.00		
	N	80	80		
Self-motivation	Pearson Correlation	0.28*	0.53**	0.39**	
	Sig. (2-tailed)	0.01	0.00	0.00	
	N	80	80	80	
SRC	Pearson Correlation	0.22*	0.40**	0.35**	0.50**
	Sig. (2-tailed)	0.04	0.00	0.00	0.00
	N	80	80	80	80

Significance: \* =  $p < .05$  \*\* =  $p < .01$

Despite the relatively low reliability values of the categories illustrated in Table 10, a number of significant correlations were found indicating lively interactions between the categories. Correlation shows the strength of connection between the variables (Larson-Hall, 2010) involving dependence in the statistical relationships.

The categories had significant connections with one another, with the exception of vocabulary learning strategies and motivation. Motivation had significant connection with metacognition ( $p < .01$ ), with self-regulating capacity ( $p < .05$ ) and self-motivation ( $p < .05$ ). Metacognition had significant connection with all the categories ( $p < .01$ ). VLS had

significant connection ( $p < .01$ ) with all the categories except for motivation. Self-motivation and self-regulating capacity significantly correlated with motivation ( $p < .05$ ) and with all the other categories ( $p < .01$ ).

### 5.3.3 Age-related differences

Since age-related differences were in the focus of the main research, it was important to make certain that this aspect of the investigation was feasible in terms of finding differences in young learners' vocabulary learning behaviour across the ages. Therefore, age-related differences are described and discussed with the help of descriptive and inferential statistics.

#### *Descriptive statistics*

Table 12 presents the results of the descriptive statistics of the categories by the age groups. The means of all the categories, with the exception of metacognition, were the highest in age group 1 and the lowest in age group 2. Although the means of metacognition increased with age, this rise was not significant.

*Table 12: Descriptive statistics of the categories by age groups in the pilot study*

Age group	1				2				3				Total			
Category	Mean	Min	Max	SD	Mean	Min	Max	SD	Mean	Min	Max	SD	Mean	Min	Max	SD
Motivation	<b>3.65</b>	3	4	0.36	<b>3.48</b>	2	4	0.47	<b>3.52</b>	2	4	0.51	<b>3.54</b>	2	4	0.45
Meta-cognition	<b>2.90</b>	2	4	0.30	<b>2.92</b>	2	3	0.20	<b>2.97</b>	2	4	0.40	<b>2.93</b>	2	4	0.31
VLS	<b>3.00</b>	2	4	0.37	<b>2.71</b>	2	3	0.39	<b>2.86</b>	2	4	0.29	<b>2.83</b>	2	4	0.36
Self-mot	<b>2.90</b>	2	4	0.30	<b>2.76</b>	2	3	0.21	<b>2.86</b>	2	4	0.36	<b>2.82</b>	2	4	0.29
SRC	<b>2.96</b>	2	4	0.25	<b>2.65</b>	2	3	0.32	<b>2.77</b>	1	4	0.30	<b>2.77</b>	2	4	0.32

Descriptive statistics show that children in age group 1 were the most motivated, used the most vocabulary learning strategies, but they produced the lowest means in the category of self-motivation and metacognition. Children in age group 2 were also motivated, used metacognitive strategies, but provided the lowest means in the category of SRC within this age group and compared to the other age groups. Pupils in age group 3 seemed to behave similarly to the children in age group 2, though they produced higher means than their peers.

These results of descriptive statistics indicate that differences exist between the age groups, but inferential statistics can give insight in the nature of the differences.

### ***Category analysis within the age groups in the pilot study***

Table 13 presents the mean differences and similarities between the age groups in the categories where significant differences were found.

*Table 13: Significant mean differences of the categories between the age groups in the pilot study*

Category	Age group		Mean Difference	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
VLS	1	2	0.28*	0.01	0.05	0.52
SRC	1	2	0.30*	0.00	0.11	0.49

\* ( $p < .01$ ) (Dunnett T3)

Two categories showed significant mean difference between the age groups. The use of vocabulary learning strategies and self-regulating capacity were found to be significantly different ( $p < .01$ ) between age groups 1 and 2. In the use of the other three categories, such as motivation, self-motivation, and metacognition there were no significant differences.

Table 14 makes the age-related similarities and differences more clear-cut by showing the mean values of the categories represented in homogeneous subsets. Homogeneous subsets are displayed in one column, illustrating similarities in the use of categories. As the table presents, the categories of motivation, metacognition and self-motivation represented homogeneous subsets, but age-related differences were found in the categories of vocabulary learning strategies and self-regulating capacity.

The VLS of age groups 2 and 3, and 3 and 1 were similar, and the mean difference (0.28) was significant only between age groups 1 and 2. The means of self-regulating capacity was the highest in age group 1, and the lowest in age group 2. The SRC of age groups 2 and 3 were similar, but age group 1 was different from the other two age groups. The mean difference (0.30) was significant between age groups 1 and 2. The correlation matrixes of the categories (Tables 15, 16, and 17) are presented for the age groups below.

Table 14: Mean values of the age groups in the categories in the pilot study

Strategy	Age group	Subset for alpha = 0.05	
		1	2
Motivation	3	3.48	
	2	3.52	
	1	3.65	
Metacognition	1	2.90	
	2	2.92	
	3	2.97	
Self-mot	2	2.76	
	3	2.86	
	1	2.90	
VLS*	2	2.71	
	3	2.86	2.86
	1		3.00
SRC*	2	2.65	
	3	2.77	
	1		2.96

Tukey B<sup>a,b</sup>

a. Uses Harmonic Mean Sample Size = 25,780.

b. The group sizes are unequal. The harmonic mean of the group sizes is used.

Type I error levels are not guaranteed.

\* There is significant statistical difference between two of the age groups.

## Age group 1

The Cronbach's Alpha of age group 1 was 0.65.

Table 15: Correlation matrix of the categories in age group 1 in the pilot study

Categories		Motivation	Meta-cognition	VLS	Self-mot
Meta-cognition	Pearson Correlation	0.20			
	Sig. (2-tailed)	0.34			
	N	23			
VLS	Pearson Correlation	0.14	0.52*		
	Sig. (2-tailed)	0.51	0.01		
	N	23	23		
Self-mot	Pearson Correlation	-0.04	0.64**	0.37	
	Sig. (2-tailed)	0.85	0.00	0.07	
	N	23	23	23	
SRC	Pearson Correlation	-0.09	0.33	0.20	0.47*
	Sig. (2-tailed)	0.66	0.12	0.33	0.02
	N	23	23	23	23

Significance: \* =  $p < .05$  \*\* =  $p < .01$

In age group 1 there was significant correlation between metacognition and self-motivation ( $p < .01$ ), and the connections between metacognition and VLS, and self-motivation and SRC were also significant ( $p < .05$ ). What is more interesting, however, is that motivation did not correlate with the other categories, and had negative though not significant correlation with self-motivation and self-regulating capacity meaning that motivation in general did not automatically translate into strategy use and strategic learning behaviour.

## ***Age group 2***

The Cronbach's Alpha of age group 2 was 0.60.

*Table 16: Correlation matrix of the categories in age group 2 in the pilot study*

Categories		Motivation	Meta-cognition	VLS	Self-mot
Meta-cognition	Pearson Correlation	0.49**			
	Sig. (2-tailed)	0.00			
	N	34			
VLS	Pearson Correlation	-0.06	0.35*		
	Sig. (2-tailed)	0.69	0.03		
	N	34	34		
Self-mot	Pearson Correlation	0.31	0.33	0.45**	
	Sig. (2-tailed)	0.07	0.05	0.00	
	N	34	34	34	
SRC	Pearson Correlation	0.16	0.44**	0.21	0.44**
	Sig. (2-tailed)	0.34	0.00	0.22	0.00
	N	34	34	34	34

Significance: \* =  $p < .05$  \*\* =  $p < .01$

In age group 2 there were significant connections between motivation and metacognition, metacognition and self-regulating capacity, VLS and self-motivation, and self-motivation and SRC ( $p < .01$ ). The connection between metacognition and VLS was also significant ( $p < .05$ ). However, the correlations were not significant between motivation and self-motivation, motivation and self-regulating capacity, metacognition and self-motivation, and VLS and SRC. Moreover, the connection was negative, though not significant, between motivation and VLS.



### Age group 3

The Cronbach's Alpha of age group 3 was 0.78.

*Table 17: Correlation matrix of the categories in age group 3 in the pilot study*

Categories		Motivation	Meta-cognition	VLS	Self-mot
Meta-cognition	Pearson Correlation	0.47*			
	Sig. (2-tailed)	0.02			
	N	23			
VLS	Pearson Correlation	0.40	0.39		
	Sig. (2-tailed)	0.05	0.06		
	N	23	23		
Self-mot	Pearson Correlation	0.42*	0.58**	0.26	
	Sig. (2-tailed)	0.04	0.00	0.22	
	N	23	23	23	
SRC	Pearson Correlation	0.38	0.58**	0.43*	0.55**
	Sig. (2-tailed)	0.07	0.00	0.03	0.00
	N	23	23	23	23

Significance: \* =  $p < .05$  \*\* =  $p < .01$

In age group 3 there were significant connections between metacognition and self-motivation, metacognition and SRC, and self-motivation and SRC ( $p < .01$ ). The connections between motivation and metacognition, motivation and self-motivation, and VLS and SRC were also significant ( $p < .05$ ). The correlations were not significant between motivation and VLS, motivation and SRC, metacognition and VLS, and VLS and self-motivation.

Although the category analysis illustrated the differences in the groups of strategies, it did not show the difference in the use of the individual strategies. Therefore, the homogeneous subsets of the strategies between the age groups are presented in Appendix 10.2. Out of the 55 items difference was found in the use of 17 strategies, and it was significant in the case of 15 strategies (27.27 %). In seven cases the strategy use of age group 1 proved to be different providing the highest means. In another seven cases age group 3 used strategies differently representing the highest means, while age group 2 used only one strategy with the highest mean in a different way.

Although a more thorough analysis could be presented based on the findings of the pilot study, my goal here was to highlight that there were some significant age-related

differences both in the categories and in the use of individual strategies in order to ensure the further investigation concerning ages.

#### **5.3.4 Discussion of the results**

The pilot study aimed to underlie the research by validating the quantitative instrument and by finding evidence for age-related differences; therefore, the results are discussed focusing on the items and categories of young learners' SRV learning and on the main features of differences between the age groups.

##### ***Validating the questionnaire***

The scores in all the categories and items were above the mean of 2.5, therefore it can be stated that young learners frequently reported using these strategies for learning vocabulary and, consequently, that the questionnaire was able to elicit information on self-regulated language learning. In this section, first, I point out important scores on individual items with the intention of highlighting the extremes in young learners' strategy use and then discuss the functionality of the questionnaire.

The highest mean was found at Mot 02 'learning words is important so that I can make myself understood if I travel abroad' (M=3.65), indicating learners' high level of instrumental motivation to learn English vocabulary. Besides being instrumentally motivated, YLs used self-motivational strategies to facilitate vocabulary learning. The mean of Self-mot 50 'after I have learned the words I do something I like (e.g. play computer games, watch TV, etc.)' was the second highest (M=3.56), which strategy functions as a reward. However, the participants seemed not to agree on the use of the strategy of Meta 06 'besides school, I learn words at different pages on the internet' (M=2.33) and Meta 08 'I improve my vocabulary by watching films in English' (M=2.38). All in all, the results indicate that the participants, in general, used the strategies involved in the questionnaire and their strategy use was rather varied. Consequently, it is worth investigating this inventory of strategies on a larger sample.

The significant correlations between the categories (Table 11) point to their connection and strengthen their viability both as individual units and as constituents of the higher system of young learners' SRV learning. The correlation, however, was not significant between the categories of motivation and VLS. The reason for this can be that although the participants were generally motivated and used a variety of strategies, they may have not been motivated

to use vocabulary learning strategies. This finding indicates that it is well worth looking into the working of the categories in a larger data set.

As a result of the analysis of categories, strategies that did not entirely stand for their categories were considered to be excluded, since their deletion would increase the reliability of the categories in the overall questionnaire. However, the reason for the low reliability coefficients of the categories, besides the high variance of the responses in the case of some strategies, is that either these strategies may not fit into their category or that they do not go together with the other items, combined with the relatively low number of overall participants. Examining the categories on a bigger database would expectedly produce higher scores. Moreover, deleting items would change the functionality of the questionnaire especially given the age factor involved, since, as I have suggested before, age differences in strategy use can be responsible for some of the odd results. Therefore deleting items would risk the success of the research, and, thus, I decided not to delete any of the items from the questionnaire.

In sum, based on the results of the statistical procedures, the Likert-type quantitative questionnaire piloted in this part can be used to measure strategic vocabulary learning, and though partially, it reflects the categories of young learners' SRV learning. Consequently, with some modifications, which are described at the end of this chapter, the instrument can be submitted to further research purposes.

### ***Age-related differences***

Although the most important outcome of the pilot study is that age-related differences can indeed be found, these differences are not discussed here as the goal of the pilot study was to establish the background for the main study. However, some findings are presented briefly in order to provide guideline to the analysis of the main study. The pilot study pointed at the differences of the strategy use of the three age groups respectively. The participants' self-regulated vocabulary learning did not show a rising tendency, i.e. there was no consistent increase in the use of strategies among the age groups. Therefore, from the pilot data, the conclusion that strategic vocabulary learning improved with age cannot be drawn. Nevertheless, data analysis made it obvious that there was a certain degree of change between these age groups. The youngest learners in age group 1 seemed to be the most strategic to learn vocabulary and the means of the categories were the highest in this age group meaning that they generally reported using most of the items in the pilot questionnaire.

The analysis of age-related differences between the categories of young learners' SRV learning showed that age group 1 was the most motivated to learn vocabulary and,

surprisingly, they reported using the most self-motivational strategies, as well. Thus, it is a finding that must also be examined in the main study. In the case of metacognition, contrary to the other categories, a linear increase was observed, i.e. the means of metacognition was the lowest in age group 1, a bit higher in age group 2, and the highest in age group 3. However, there was no significant difference in the use of this category and the strategy use of children was similar in the three age groups. Therefore, it would be difficult to draw reliable conclusions based on the pilot data, and this fact makes further investigation necessary. Furthermore, the difference between the age groups was significant in the use of VLS and self-regulation. The use of VLS of age group 1 was significantly higher than that of age group 2, meaning that the youngest participants applied significantly more strategies or some of them more often than older children. The strategies used for self-regulation were also the highest in age group 1, which finding also requires further elaboration.

Correlation analysis showed that in age group 1 there was no significant correlation between motivation and the other categories, and in addition, its connection to self-motivation and SRC was negative, meaning that motivation behaved differently from these categories. However, the correlation analysis showed that most of the categories connected to one another and the strategies fitted in each category worked in the similar way in the age groups.

Besides analysing the differences in the use of categories, observing the variation in the use of individual strategies revealed some unusual things. Although mean differences were significant in the use of 15 strategies all together, and two more strategies (Meta 09, SRC 48) showed dissimilarity, there was not a single strategy that was used differently between all the three age groups respectively (Appendix 10.2). In a larger sample the differences between the items of self-regulated vocabulary learning would be more subtle and more traceable.

In sum, data analysis indicated that the YLs were strategic in learning vocabulary. They reported using most of the strategies, and the categories of young learners' SRV learning worked actively together. The validation procedure was successfully carried out and the age-related issue was productively addressed by piloting the quantitative questionnaire. The main outcomes of the pilot study, therefore, are the valid instrument that can be used in the main study of the research, and the evidences for age differences which can be further investigated.

### 5.3.5 The quantitative questionnaire – Final version

Although a number of alterations were initiated relying on the results of the pilot study, only some were made in the final version. The reason for this was that on the whole the pilot questionnaire was found to be reliable, the categories seemed to work together, and the age-related differences were confirmed by the use of strategies. Moreover, as I have stated before, contracting categories or deleting items from the questionnaire can influence the functionality of the final version. Therefore, compared to the pilot version, the following changes were made to improve the reliability of the final questionnaire and its categories:

- a) The metacognitive strategy of Meta 13 ‘I often read through and review the English words’ was made more specific in order to typify self-monitoring more adequately. With this change the strategy in the final questionnaire (Meta 28) sounds like ‘I often review the English words in order not to forget them’.
- b) Two strategies were added to the category of VLS in order to provide more options within the category and to represent the category more effectively by increasing the number of items. The strategies added to the final version were VLS 35 ‘I learn the words alone’ and VLS 48 ‘I can imagine the meaning of new words easily based on pictures or drawings’. VLS 35 belongs to social strategies and VLS 48 represents the use of mental pegs. VLS 48 was not included in the pilot study, since children in the structured interviews did not refer to the use of this strategy. However, this strategy was found to be used in the observation part of the research, and was considered to be tested in the final questionnaire.
- c) The most important alteration, however, was mixing up the questions of the questionnaire. This last change was made to eliminate respondents’ bias in connection with the items belonging together, and gaining more refined answers. For example, strategy of SRC 48 ‘I do not feel stressed about learning words’, as it had been originally noticed in the initial piloting and confirmed in the pilot study, behaved differently and was appointed for deletion. The reason for its different behaviour was probably that it was listed together with the other statements concerning stress. Separating these items would expectedly increase the reliability of the category, and consequently, separating other items that belong to the same category would result in a more reliable questionnaire.

These changes were made in the final version of the quantitative questionnaire in order to improve the overall reliability of the instrument and its categories without vastly intervening in its original development and functionality. The final questionnaire can be seen in Appendix 11. In order to make orientation easier between the pilot and the main questionnaires the arrangements of the categories and items are presented in a table in Appendix 9.1 and the item numbers that match in the two questionnaires are in Appendix 9.2. Also, a table in Appendix 9.3 shows the questions of the final questionnaire grouped by the categories they belong to.

## **CHAPTER 6**

### **PHASE III: MEASURING YOUNG LEARNERS' SELF-REGULATED VOCABULARY LEARNING: USING THE QUANTITATIVE INSTRUMENT**

In the previous phases of the research qualitative and quantitative data was collected which represented the items and categories of young learners' self-regulated vocabulary learning. In this phase the quantitative instrument developed and validated in Phase II is used to collect data on young learners' strategic vocabulary learning. The goals of this final phase were to quantitatively measure and analyse young learners' SRV learning, to examine age-related differences in the use of the categories and strategies within and between the age groups, and to demonstrate the operability of the final quantitative instrument. In this phase of the dissertation I intended to find the answer to my third research question: Based on the quantitative instrument developed in the second phase of the research, what patterns of young learners' self-regulated vocabulary learning are revealed in a large-scale investigation within and across age groups?

#### **6.1 Method**

##### ***Instrument***

The quantitative questionnaire used in this part of the research was the Likert-type rating scale (Appendix 11) which was developed, validated and described in the previous phase. Although some changes were made to raise the reliability of the instrument, it was not altered to a considerable extent; therefore, I expected that the results would fall in line with the findings of the pilot study. The scale was administered in order to assess young learners' SRV learning and to gain a comprehensive picture of their strategic vocabulary learning and its development across the age groups.

##### ***Participants and settings***

The last phase, just like the whole research, targeted the population of elementary school learners of English as a FL. The participants (n=331) were from 3<sup>rd</sup> to 8<sup>th</sup> graders in the three age groups under investigation. Since multivariate statistical procedures require a minimum of 100 or more participants (Dörnyei, 2003, p. 74), more than 300 children were involved in this

part to fill in the questionnaire. Pupils from four elementary schools in Kecskemét took part in this phase, but the schools where the questionnaire was piloted were not involved, i.e. different learners took part in the pilot study and in the main study.

### ***Procedures***

The final questionnaire was distributed among the four elementary schools. The English teachers, who volunteered to administer the questionnaire, made their language learners answer the questions during an English class. The teachers were given a written guide which informed them about the goal of the research and the most important steps of the procedure. Participants' anonymity was guaranteed. Completing the questionnaire took 20 minutes on average; the youngest learners needed the longest time.

### ***Analysis***

In this part SPSS Version 20 (Statistical Package for the Social Sciences) was used to analyse the data yielded by the final quantitative instrument. Several statistical techniques were employed. Descriptive statistics were applied to calculate means and standard deviations for the use of the categories and each strategy. By the means of descriptive statistics the most and least common strategy items and categories of young learners' SRV learning were identified. To prove the internal consistency of the questionnaire and ensure its reliability Cronbach alpha was calculated for the whole questionnaire and for each category. Correlations were processed to define the structure of young learners' vocabulary learning.

## **6.2 Results**

In this section, first, data is presented to demonstrate young learners' strategic vocabulary learning in general and in the framework of the categories of young learners' SRV learning. Then age-related differences are analysed. The results are presented in terms of descriptive and inferential statistics.

### **6.2.1 Measuring young learners' SRV learning across the age groups**

With the aim to provide an overall view, first, descriptive statistics is presented and described for the categories and the individual items. Table 18 shows the results of descriptive statistics for the categories of young learners' SRV learning in descending order of the means. The



mean of motivation was the highest and that of self-regulation was the lowest, and, interestingly, the standard deviation of these categories was the highest as well, indicating a wider range of scores in these variables. The means of each category as well as the total mean (2.91) was higher than the mean of 2.5.

*Table 18: Descriptive statistics of the categories in the main study*

	<b>N</b>	<b>Mean</b>	<b>Minimum</b>	<b>Maximum</b>	<b>SD</b>
<b>Motivation</b>	331	3.64	1	4	0.43
<b>Metacognition</b>	331	2.92	1	4	0.37
<b>Self-motivation</b>	331	2.90	1	4	0.34
<b>VLS</b>	331	2.88	1	4	0.37
<b>SRC</b>	331	2.80	1	4	0.40

The table in Appendix 12.1 presents the means of the individual strategies in descending order. All the three strategies of motivation in the questionnaire were at the top of the list. Although the means of the category of SRC were the lowest, the items with the lowest means were metacognitive strategies (Meta 15 ‘besides school, I learn words at different pages of the internet’ and Meta 43 ‘I play computer games in order to improve my vocabulary’). The means of six strategies (VLS 13 ‘I memorize words by writing them a lot of times’, VLS 39 ‘I just pick up the new words’, SRC 25 ‘If I feel stressed about learning words I learn more in order to know them better’, Meta 04 ‘I would like to improve my vocabulary by reading books in English’, Meta 15 ‘Besides school, I learn words at different pages of the internet’, and Meta 43 ‘I play computer games in order to improve my vocabulary’) (10.52 % of all) were, based on the four descriptors, under the mean of 2.5, meaning that participants did not frequently use these strategies for learning vocabulary. It is interesting that, though the category of SRC produced the lowest means, only one of the strategies of SRC got a lower mean than the average of 2.5, indicating that strategies belonging to this category scored generally low. The standard deviation was considerably high in the case of some self-motivational strategies, illustrating considerable variance in pupils’ strategy use in this respect.

### ***Category analysis***

The Cronbach’s Alpha for the entire questionnaire was 0.85. This is a fairly high value and the item-total statistics did not indicate that deleting any of the items would result in the increase of the reliability. However, category analysis brought a slightly different result. The Cronbach’s Alpha for the five categories was 0.78, which would increase to 0.80 if the

category of motivation were deleted. However, deleting any of the categories would risk the overall function of the questionnaire. Rather, it would be reasonable to integrate motivation into the category of self-motivation, especially as there were only three questions for motivation. It has to be mentioned that, interestingly, the items of motivation that seem not to fit into the system represent Gardner's (1985) traditional instrumental motivation. However, when the traditional and dynamic aspects of motivation are integrated, the new category adequately stands for self-motivational strategies implying that traditional strategies can represent and contribute to self-motivation.

The closer examination of the categories highlighted the possible deletion of some of the items. Although the reliability of the category of motivation would increase with the deletion of item Mot 10, and that of the category of metacognition with the item of Meta 43, these changes were not made, since the increase in the reliability would not be substantial and these strategies correlate with their categories. Furthermore, with the integration of motivation and self-motivation the reliability of the new category would increase. However, item-total statistics indicates that deleting Self-mot 40 would increase not only the reliability of the new self-motivation category but the total reliability of the categories. The deletion of items VLS 35 'I learn the words alone', and SRC 21 'if I am bored with learning words, I do something else instead (e.g. eat or drink, play, watch TV, etc.)', which do not correlate with their categories, would increase the reliability of their own categories and that of the total of the categories. Also, the Cronbach's Alpha of the questionnaire would slightly increase to 0.86. Performing these changes in the structure of the questionnaire the reliability of all the categories would be above 0.6 and in the case of exploratory research Cronbach's Alpha values  $0.60 \leq$  are acceptable (Hair, Anderson, Tatham, & Black 1998). Table 19 presents the results of the category validation procedure.

*Table 19: Reliability of the categories in the main study*

Category	Cronbach's Alpha	Cronbach's Alpha if item deleted	
		Item	Cronbach's Alpha
Motivation	0.51	10	0.55
Metacognition	0.71	43	0.74
VLS	0.56	35	0.61
Self-motivation	0.54	40	0.57
SRC	0.55	21	0.63
Motivation + self-motivation	0.59	40	0.62
Total	0.78	21, 35, 40	0.82

The item-total statistics showed the strategies that did not seem to work in the same way as the other items belonging to the same category. Although the deletion of these items would increase the reliability of the category, due to their different behaviour they seemed to be essential for further examination since they were supposed to draw attention to age-related variations, therefore these items were not deleted from the questionnaire.

The correlation matrix (Table 20) demonstrates that there were significant correlations between all the categories ( $p < .01$ ), meaning that these categories worked together. However, it was the category of metacognition that correlated the most significantly with all the other categories, suggesting that it plays a role in the young learners' self-regulated vocabulary learning.

*Table 20: Correlation matrix of the categories in the main study*

Categories		Motivation	Self-mot	VLS	SRC
Self-mot	Pearson Correlation	0.28**			
	Sig. (2-tailed)	0.00			
	N	331			
VLS	Pearson Correlation	0.28**	0.56**		
	Sig. (2-tailed)	0.00	0.00		
	N	331	331		
SRC	Pearson Correlation	0.25**	0.49**	0.52**	
	Sig. (2-tailed)	0.00	0.00	0.00	
	N	331	331	331	
Meta-cognition	Pearson Correlation	0.41**	0.53**	0.57**	0.41**
	Sig. (2-tailed)	0.00	0.00	0.00	0.00
	N	331	331	331	331

Significance: \*\* =  $p < .01$

All in all, the high value of Cronbach's Alpha showed the reliability of the questionnaire and the significant correlations justified the viability of the categories. Although the reliability of the categories would improve by deleting an item from each category, omitting any of the items from this database would not be sensible, because due to their different nature, they may carry useful information about age-related characteristics. Therefore, as I have stated above, no item was deleted from the final version of the questionnaire.

In this section a general picture of the results of young learner' SRV learning was presented, strategic vocabulary learning was assessed, and by displaying the viability of the categories it was also demonstrated that the final questionnaire worked properly.

## 6.2.2 Measuring age-related differences in young learners' SRV learning

In this section, age-related differences in young learners' self-regulated vocabulary learning within and across the age groups are presented. First, the findings on the categories are presented by the means of descriptive statistics, and, then, the correlations between the categories are demonstrated. Finally, the differences in the individual items are examined.

Concerning age-related differences it was expected that the quantitative findings would add to the qualitative results that emerged in Phase I, and, thus, would give more subtle explanations for the differences. Accordingly, the goals for this section were to find evidence for the differences between the age-groups in the use of the categories and also in the individual strategies, to find explanations for the particular aspects of young learners' strategic learning, and to recognize certain trends in self-regulated vocabulary learning. Also, as both the qualitative data and the pilot data suggested, there was a boundary between age-group 1 and the other age groups. Explanation for this phenomenon is looked for in this section.

### *The results of descriptive statistics*

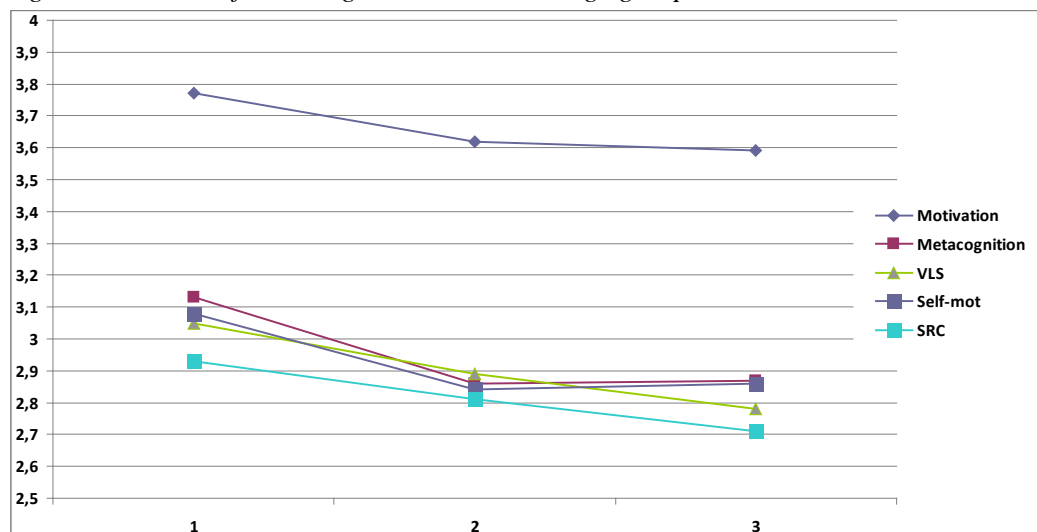
The results of the descriptive statistics of the categories by age groups are presented in Table 21, and illustrated from different perspectives in Figures 3 and 4. Figure 3 illustrates the results from the perspective of the categories, while figure 4 shows the differences between the age groups.

*Table 21: Descriptive statistics of the categories by age groups in the main study*

Age group	1				2				3				Total			
Category	Mean	Min	Max	SD	Mean	Min	Max	SD	Mean	Min	Max	SD	Mean	Min	Max	SD
Motivation	<b>3.77</b>	2	4	0.38	<b>3.62</b>	1	4	0.41	<b>3.59</b>	2	4	0.47	<b>3.64</b>	1	4	0.43
Meta-cognition	<b>3.13</b>	2	4	0.37	<b>2.86</b>	2	4	0.35	<b>2.87</b>	2	4	0.34	<b>2.92</b>	2	4	0.37
Self-mot	<b>3.08</b>	3	4	0.32	<b>2.84</b>	2	4	0.36	<b>2.86</b>	2	4	0.30	<b>2.90</b>	2	4	0.34
VLS	<b>3.05</b>	2	4	0.34	<b>2.89</b>	2	4	0.34	<b>2.78</b>	2	4	0.39	<b>2.88</b>	2	4	0.37
SRC	<b>2.93</b>	2	4	0.38	<b>2.81</b>	2	4	0.36	<b>2.71</b>	1	4	0.42	<b>2.80</b>	1	4	0.40

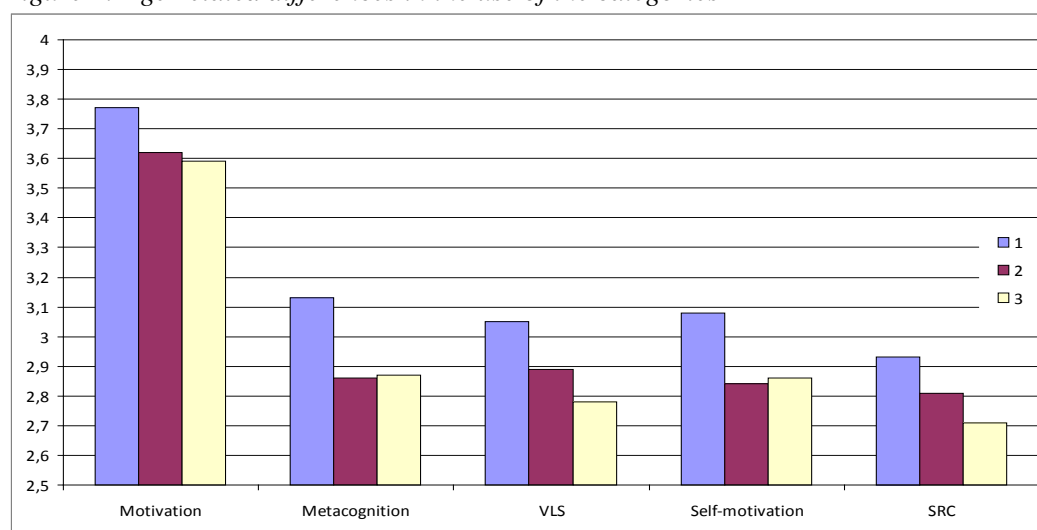
The descriptive statistics of the categories showed that in the case of all the age groups motivation produced the highest means and SRC the lowest, while there was some variation in the order of the middle three categories. This finding is illustrated in figure 3.

*Figure 3: The use of the categories between the age groups*



The means of the categories were higher than 2.5 in each case, meaning that the pupils irrespectively of the age group they belonged to reported using most of the strategies involved in the categories. Figure 4 illustrates the same results from the perspective of the age-related differences in the use of categories.

*Figure 4: Age-related differences in the use of the categories*



It can be seen well that the means of age group 1 exceeded the means of age groups 2 and 3 in the case of all the categories. As for the other two age groups, they seem to behave similarly when learning words in English.

### *Mean differences of the categories*

The mean differences in the use of categories between the age groups are illustrated in Table 22. In order to help interpret the result it can be useful to notice again that in all the categories age group 1 produced the highest means. The differences were significant between age groups 1 and 2 and age groups 1 and 3 in the category of motivation, VLS, self-motivation, and metacognition, meaning that the strategy use of age group 1 was significantly different from that of the other age groups. In the case of self-regulating capacity the mean difference was significant only between age groups 1 and 3, reflecting the highest difference between the youngest and the oldest learners in this category.

*Table 22: Mean differences of the categories between the age groups in the main study*

Category	Age group		Mean Difference	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Motivation	1	2	0.14 <sup>*</sup>	0.04	0.00	0.28
	1	3	0.18 <sup>*</sup>	0.01	0.03	0.33
VLS	1	2	0.16 <sup>*</sup>	0.00	0.04	0.29
	1	3	0.27 <sup>*</sup>	0.00	0.14	0.40
Self-mot	1	2	0.23 <sup>*</sup>	0.00	0.12	0.36
	1	3	0.22 <sup>*</sup>	0.00	0.11	0.33
SRC	1	3	0.22 <sup>*</sup>	0.00	0.08	0.36
Meta-cognition	1	2	0.27 <sup>*</sup>	0.00	0.14	0.40
	1	3	0.25 <sup>*</sup>	0.00	0.13	0.39

\*. The mean difference is significant at the 0.05 level. (Dunnett T3)

The homogeneous subsets (Table 23) belonging to the categories demonstrate that age group 1 was different from the other two age groups, while age groups 2 and 3 belonged to one homogeneous subset in the case of all the categories. However, the mean difference was bigger between age group 1 and age group 3 for the categories of motivation, VLS and self-regulation, and between age groups 1 and 2 in the cases of self-motivation and metacognition.

*Table 23: Mean differences of the age groups in the categories in the main study*

Strategy	Age group	Subset for alpha = 0.05	
		1	2
Motivation	3	3.59	
	2	3.62	
	1		3.77
VLS	3	2.78	
	2	2.89	
	1		3.05
Self-mot	2	2.84	
	3	2.86	
	1		3.08
SRC	3	2.71	
	2	2.81	
	1		2.93
Metacognition	2	2.86	
	3	2.87	
	1		3.13

Tukey B<sup>a,b</sup>

a. Uses Harmonic Mean Sample Size = 25,780.

b. The group sizes are unequal. The harmonic mean of the group sizes is used.  
Type I error levels are not guaranteed.

### ***The correlation matrix of the categories for each age group:***

#### ***Age group 1***

The Cronbach's Alpha of age group 1 was 0.76, and it would increase to 0.80 if the category of motivation were deleted.<sup>8</sup>

<sup>8</sup> Although the influence of the deleting procedure on the reliability coefficient has been statistically tested, the deletion – since there would be no significant change in the value – is only a suggestion, because it has no practical use in this research. Therefore, in the following, though the possibility of deletion is checked, it is not materialized, but remains an option.

*Table 24: Correlation matrix of the categories in age group 1 in the main study*

Categories		Motivation	Self-mot	VLS	SRC
Self-mot	Pearson Correlation	0.17			
	Sig. (2-tailed)	0.13			
	N	73			
VLS	Pearson Correlation	0.24*	0.64**		
	Sig. (2-tailed)	0.03	0.00		
	N	73	73		
SRC	Pearson Correlation	0.15	0.55**	0.50**	
	Sig. (2-tailed)	0.18	0.00	0.00	
	N	73	73	73	
Metacognition	Pearson Correlation	0.35**	0.46**	0.63**	0.31**
	Sig. (2-tailed)	0.00	0.00	0.00	0.00
	N	73	73	73	73

Significance: \* =  $p < .05$  \*\* =  $p < .01$

In age group 1 the categories significantly correlated with the exception of motivation, which did not correlate significantly with either self-motivation or self-regulating capacity (Table 24). It is important that motivation seems to work differently from self-motivation in this age group. Nevertheless, the result of the correlation analysis involving the new category of self-motivation (Table 25) in which motivation was integrated would not only make the Cronbach's Alpha of age group 1 improve to 0.79, but the connection between all the categories would be significant at the level of 0.01.

*Table 25: Correlation matrix with the new category of self-motivation in age group 1 in the main study*

Categories		Self-mot (new)	VLS	SRC
VLS	Pearson Correlation	0.60**		
	Sig. (2-tailed)	0.00		
	N	73		
SRC	Pearson Correlation	0.47**	0.50**	
	Sig. (2-tailed)	0.00	0.00	
	N	73	73	
Metacognition	Pearson Correlation	0.49**	0.63**	0.31**
	Sig. (2-tailed)	0.00	0.00	0.00
	N	73	73	73

Significance: \*\* =  $p < .01$

Although, the integration of the categories of motivation and self-motivation would result in significant correlations between all the categories, it would erase the important difference of the categories, i.e. self-motivation had the highest significant correlations with all the categories and motivation had the lowest correlations (Table 24). It was interesting among the results that motivation did not correlate significantly with self-motivation and self-regulating



capacity in age group 1, indicating that these categories functioned differently and did not depend on each other.

### ***Age group 2***

The Cronbach's Alpha of age group 2 was 0.75. Table 26 shows that in the case of age group 2 all the categories significantly correlated with one another ( $p < .01$ ). In this age group the largest correlation was also between self-motivation and VLS, and the lowest was between motivation and self-motivation.

*Table 26: Correlation matrix of the categories in age group 2 in the main study*

Categories		Motivation	Self-mot	VLS	SRC
Self-mot	Pearson Correlation	0.23**			
	Sig. (2-tailed)	0.00			
	N	131			
VLS	Pearson Correlation	0.33**	0.56**		
	Sig. (2-tailed)	0.00	0.00		
	N	131	131		
SRC	Pearson Correlation	0.24**	0.47**	0.43**	
	Sig. (2-tailed)	0.00	0.00	0.00	
	N	131	131	131	
Metacognition	Pearson Correlation	0.33**	0.46**	0.49**	0.32**
	Sig. (2-tailed)	0.00	0.00	0.00	0.00
	N	131	131	131	131

Significance: \*\* =  $p < .01$

### ***Age group 3***

The Cronbach's Alpha of age group 3 was 0.77. Table 27 illustrates that there were significant correlations between all the categories in age group 3. The largest was the correlation between the category of self-motivation and metacognition, the lowest was between motivation and VLS.

*Table 27: Correlation matrix of the categories in age group 3 in the main study*

Categories		Motivation	Self-mot	VLS	SRC
Self-mot	Pearson Correlation	0.33**			
	Sig. (2-tailed)	0.00			
	N	127			
VLS	Pearson Correlation	0.20*	0.46**		
	Sig. (2-tailed)	0.02	0.00		
	N	127	127		
SRC	Pearson Correlation	0.25**	0.44**	0.54**	
	Sig. (2-tailed)	0.00	0.00	0.00	
	N	127	127	127	
Metacognition	Pearson Correlation	0.47**	0.56**	0.53**	0.48**
	Sig. (2-tailed)	0.00	0.00	0.00	0.00
	N	127	127	127	127

Significance: \* =  $p < .05$  \*\* =  $p < .01$

In all the three age groups the high correlations between the categories point at the forceful operation between the categories. However, as for the highest and lowest correlations, age groups 1 and 2 seemed to work similarly, while in age-group 3 the correlations show a slightly different tendency. In this age group the highest was the correlation between self-motivation and metacognition, and the lowest was between motivation and VLS.

### *Mean differences of the individual strategies between the age groups*

Differences in the use of the individual strategies are presented because they are not only responsible for the differences in the categories they belong to, but indicate the dissimilarity of strategy use. As for the use of individual strategies multiple comparisons (Dunnett T3) and homogeneous subsets (Tukey B) were calculated to illustrate the differences and similarities between the age groups. The homogenous subsets of the differences in strategy use between the age groups are illustrated in the table in Appendix 12.2.

Age-related differences proved to be significant in a number of cases. 57.89 % of the strategies (33 out of the 57) were used differently between the age groups. From metacognitive strategies 10 (62.50 %), VLS 8 (66.66 %), self-motivation 7 (50 %), self-regulation 7 (58.33 %) and from motivation 1 (33.33 %) strategy was used differently. The strategies that showed age-related differences with the highest means representing their category were Meta 50 'I am able to form more and more sentences, because I know more and more words', ( $M=3.38$ ), VLS 35 'I learn the words alone' ( $M=3.18$ ), Self-mot 31 'I learn words efficiently and I have good results' ( $M=3.07$ ), Mot 10 'I don't think learning words is important' ( $M=3.60$ ), and SRC 30 'if I can't pay attention to learning words, I try to

concentrate better' ( $M=3.05$ ). In almost all the cases age group 1 produced the highest means. However, in the case of strategies VLS 35 'I learn the words alone' and SRC 21 'if I am bored with learning words, I do something else instead (e.g. eat or drink, play, watch TV, etc.)' age group 3, and in the case of SRC 54 'if I am bored with learning words, I stop it for a while and then I continue' age group 2 scored the highest means, although the mean difference in SRC 54 was not significant.

The difference was the most salient in the case of strategies VLS 12 'someone helps me in learning new words (e.g. family member, relative, friend, etc.)', Meta 28 'I often review the English words in order not to forget them', and Self-mot 38 'I would like to improve my vocabulary by learning, revising, and listening more', because all the three age groups used these strategies differently, although the difference was significant between the three age groups only in the case of VLS 12. In the case of Meta 28 the difference was significant between age groups 1 and 3, and 2 and 3, and in the case of Self-mot 38 only between age groups 1 and 3.

## **6.3 Discussion of the results**

### **6.3.1 The construction of the final quantitative questionnaire**

The final instrument made it possible to measure young learner's self-regulated vocabulary learning and age-related differences. First of all, the relevance of the changes I made in the final questionnaire compared to the pilot version is examined to support the discussion of the results gained by this instrument. Compared to the pilot version, the strategy of Meta 28 (Meta 13 in the pilot study) 'I often review the English words in order not to forget them' was altered to elicit self-monitoring more adequately. In the pilot study this strategy was not specified to refer to a self-monitoring activity and produced the mean of 2.91, and in the main study it produced the mean of 2.98. Although both values indicate that the participants reported using this strategy for learning vocabulary, the strategy in the main questionnaire which specified the goal of repetition scored a bit higher, contributing to the high values of the category of metacognition. More importantly, however, significant differences were found in the use of this strategy between all the age groups, indicating that specifying this strategy proved to be very useful and resulted in salient differences across the ages.

In order to represent the category of VLS better two more items were added. The social strategy of VLS 35 'I learn the words alone' was one of the new strategies. This

strategy, however, did not work properly together with the social strategy of VLS 12 ‘someone helps me in learning new words (e.g. family member, relative, friend, etc.)’. While VLS 12 clearly indicated age-related differences, VLS 35 – having the opposite meaning – negatively correlated with its category decreasing its reliability and that of the whole questionnaire. Since these items represented the opposite ends of the same scale of language learning, the new item should perhaps have been labelled with a negative sign. However, the statistical analysis had already highlighted this issue; the item of ‘learning alone’ behaved differently, so that the contradiction became statistically evident.

Another strategy, VLS 48 ‘I can imagine the meaning of new words easily based on pictures or drawings’ was added to the category of VLS representing a ‘mental peg’ to characterize vocabulary learning strategies more sufficiently. Children generally reported using this strategy ( $M=3.01$ ) to learn vocabulary, and significant age-related differences were found in its use between age group 1 ( $M=3.45$ ), who reported using it the most often, and the other two age groups. Consequently, its involvement in the final questionnaire was a good decision.

The final but most important alteration in the structure of the final questionnaire was mixing up the questions and separating the items that belonged together. This change, as was expected, eliminated respondents’ bias in connection with a number of strategies and yielded better results reflected in the reliability of the final questionnaire. The strategy SRC 42 in the main study ‘I do not feel stressed about learning words’ (SRC 48 in the pilot study) which decreased the reliability of its category in the pilot study, did not show any peculiar behaviour in the main study, confirming that mixing up the items and separating the strategies that belonged to the same sub-group were the right choice.

The category analysis highlighted that the reliability of the category of motivation was a bit low, which can be due to the low item numbers, but integrating it with self-motivation and deleting the strategy of Self-mot 40 the reliability of the new category would be acceptable. The results of the deletion procedure partly fall in line with the results of the pilot study, in which SRC 43 (in the main study SRC 21 ‘if I am bored with learning words, I do something else instead, e.g. eat or drink, play, watch TV, etc.’) was disregarded. The deletion of this strategy would improve the reliability of the category of self-regulation in general. The integration and deletion processes would result in good values of Cronbach’s alpha for each category providing support for the viability of the categories of young learners’ SRV learning. However, the deleting procedure was rejected, since it would have obscured the most important age-related differences. Apart from the items that obviously did not fit in their

category, the low reliability of categories can be due to further items that did not work adequately. A more straightforward formulation of the statements or a slightly different classification of the items may have increased the reliability of the categories. Factor analysis or cluster analysis could be made in order to clarify these issues. Since the overall questionnaire seemed to work properly, further testing the questionnaire was rejected in this research. All in all, the changes that were made in the questionnaire proved to be reasonable, and resulted in the higher reliability of the final instrument.

### **6.3.2 Discussing young learners' SRV learning**

As for the categories of young learners' SRV learning the results of the descriptive statistics fell in line with the outcome of the pilot study, i.e. motivation produced the highest means and self-regulating capacity the lowest, and the standard deviation was the highest in these categories. Although the means of motivation and metacognition were slightly lower than in the pilot study, and all the other categories produced a bit higher means, the means of each category were higher than 2.5, indicating that the pupils reported using the strategies involved in the questionnaire. These consistent results suggest that the learners were generally motivated to learn English vocabulary, used a variety of strategies, and they were self-regulated in learning vocabulary. The high correlations between the categories underline that the categories vastly depend on one another and their internal consistency supports the viability of the structure of young learners' SRV learning.

Although the research focused on examining the categories of young learners' SRV learning, the changes in the individual strategies were responsible for the rank order of the categories. Therefore, some of the strategies with the most extreme behaviour are also discussed in this section. The means of six strategies belonging to the categories of metacognitive, VLS, and SRC were relatively low indicating that the participants rarely use these strategies. They seemed to rarely use VLS 13 'I improve my vocabulary by watching films in English' (M=2.41) indicating that children did not have the opportunity, or did not choose to watch films in English. They did not frequently use VLS 39 'I just pick up the new words' (M=2.75), meaning that they did not have the chance to acquire English vocabulary, rather they have to make an effort to learn it, which must be due to the context of learning English as a foreign language. Pupils reported rarely applying the strategy of SRC 25 'if I feel stressed about learning words I learn more in order to know them better' (M=2.44), suggesting either they did not feel stressed or chose a different strategy to eliminate it. The

means of the other self-regulation strategy SRC 29 'if I feel stressed about learning words I try not to think about stress' produced a bit higher means ( $M=2.75$ ) indicating that learners preferred using this strategy to reduce stress. Unfortunately, this is an avoidance strategy which though can help to come out of a stressful situation does not solve anxiety problems in the long run.

The means of three metacognitive strategies were very low. Meta 04 'I would like to improve my vocabulary by reading books in English' ( $M=2.44$ ), Meta 15 'besides school, I learn words at different pages of the internet' ( $M=2.31$ ) and Meta 43 'I play computer games in order to improve my vocabulary' ( $M=2.38$ ). The low means of these strategies imply that the pupils rarely read books in English, probably because they think that reading is too difficult in the lack of sufficient vocabulary knowledge or because they may not read books in their mother tongue either. Surprisingly, young learners in general rarely reported learning words from the internet. The reason for this can be that most of the learners did not use the internet, or use it without realizing that it can have a positive effect on vocabulary development. This indicates that they rarely use the internet to learn words, or they are not aware of learning words while using the internet.

The strategies with the highest means were Self-mot 26 'after I have learned the words I do something I like (e.g. play computer games, watch TV, etc.)' ( $M=3.50$ ), Meta 27 'I know a word if I know its meaning' ( $M=3.49$ ), Meta 55 'I have to learn a lot of words to succeed in English' ( $M=3.38$ ), and Meta 50 'I am able to form more and more sentences, because I know more and more words' ( $M=3.38$ ). Discussing these strategies in comparison to the strategies with the lowest means bring some interesting issues to light. The self-reported strategy use of Self-mot 26 indicates that the learners do play computer games and watch TV as a kind of reward after learning, but probably they do these activities in their mother tongue. If they played computer games or watched TV in English, they would have reported the use of these strategies in seeking out-of-school opportunities more frequently. It is also an interesting finding that some metacognitive strategies were reported with the highest frequency, while others were among strategies with the lowest occurrence. Examining the strategies implies that although the learners were aware that they have to learn a number of words to succeed and that their English would be better by learning more and more, they seem unable or unwilling to employ out-of-school activities, which would help them learn more vocabulary. Age-related differences were also found in the use of seeking practice opportunities in out-of-school activities, which are described in the next section.

### 6.3.3 Discussing age-related differences in young learners' SRV learning

In this section, age-related differences are discussed, first, at the category and sub-category level, and, then, differences in individual strategy use are highlighted.

#### *Discussing the category results*

Age-related differences were reflected in the correlations between the categories. The reliability coefficients for each age group were above 0.7, indicating that the reliability of the age group results is acceptable. The categories showed a high level of internal consistency in age groups 2 and 3 (Tables 26 and 27). In age group 1 (Table 24), however, the category of motivation did not significantly correlate with self-motivation and self-regulating capacity, suggesting that these categories worked differently. The reason can be that the strategies belonging to the categories of self-motivation and SRC were manifested differently in the youngest learners' behaviour. When the integration of motivation with self-motivation was statistically tested (Table 25), not only did all the categories correlate significantly, but the Cronbach's alpha of age group 1 improved, indicating that motivation and self-motivation can be discussed as one category. However, as has been argued, the deletion would have eradicated the most important differences between and across the ages, and, therefore, was not performed.

The significant correlations of the categories in age groups 2 and 3 indicate the connection between the categories, meaning that learners belonging to these age groups used the strategies of each category similarly. However, there were some variations in the categories that are worth mentioning. In age group 2 (Table 26), the highest were the correlations between the categories of VLS and self-motivation, and VLS and metacognition, which indicates that learners used the strategies belonging to these categories similarly. Also, the strategies belonging to the categories of self-motivation and self-regulating capacity seemed to be used similarly in age group 2. In age group 3 the highest significant correlations were between self-motivation and metacognition, VLS and self-regulating capacity, and VLS and metacognition. These were the categories that seemed to work together in age group 2, as well, indicating that the strategic vocabulary learning behaviour of these two age groups was similar.

Evidence for age-related differences appeared in all the categories, but mainly metacognitive strategies and VLS were used differently between the age groups (Table 22). Age group 1 produced the highest means in all the categories, and significant mean

differences were found in every category. However, the difference was significant only between age group 1 and age groups 2 or 3, but not between age groups 2 and 3, indicating that the use of strategies in older learners' were similar in a number of cases. As Table 23 illustrates, regarding the categories of young learners' SRV learning age groups 2 and 3 belonged to the same homogenous subset, and, therefore, can be considered as one group.

The youngest learners who had been learning English for some months or a little more than a year used the strategies for learning vocabulary differently from older learners, who had been learning English for a number of years. The reason for younger learners scoring higher than older ones can be due to the lower size of vocabulary they have to control. Also, after the initial difficulties learners overcome, vocabulary learning accelerates (Hulstijn, 2000) and this favourable progress can result in high level of motivation and self-regulation which, due to the learning material and the language teaching methods applied in the lower section of the primary school, can be maintained in the first years of language learning. Motivational teaching techniques, especially in the initial and early stages, the use and development of appropriate learning material, the careful management of both the scope and scale of new vocabulary, are all teaching processes which are reflected both in learners' marks and their enjoyment of English. As Table 28 illustrates, both the marks and the liking of English are decreasing with age.

*Table 28: Young learners' marks in EFL and their liking of English*

	Age group	N	Min	Max	Mean	SD
Mark	1	45	4	5	4.64	0.64
	2	131	2	5	4.09	0.80
	3	127	2	5	4.02	0.87
Liking	1	73	3	5	4.48	0.74
	2	131	1	5	3.73	0.92
	3	127	1	5	3.72	0.95

While the youngest learners got marks 4 or 5, children in the other age groups got marks 2, as well, and while the youngest learners reported liking English in general, there were children in the other age groups who did not like this subject at all. These findings also indicate that the 'homogeneity' of the beginners' group was disappearing and the population of more advanced learners' was rather varied. This supposition is supported by the values of standard deviation. The values clearly show that learners' marks and enjoyment of English within the older age groups is noticeably different in quality, i.e. there are learners who get good marks,



and may therefore be considered as successful, who also, presumably, enjoy English. Also, there are less successful learners with low marks who probably do not like English very much. The children's marks and liking for English is similar in age groups 2 and 3, and different from age group 1. This dissimilarity can be the result of the amount of vocabulary they are required to learn and control in both the lower and the upper sections of the primary school, the transition in the quantity and quality of learning material, and the probable adjustment of teaching methods to these increasing demands on learners.

### ***Discussing the results of some of the sub-categories***

The importance of repetition strategy has been outlined throughout the research; therefore, it makes sense also to look into its quantitative dimension. The YLs used this cognitive strategy to memorize word lists. Three strategies were measured as belonging to this sub-strategy group. VLS 09 'I memorize words by reading them a lot of times' (M=3.02), VLS 13 'I memorize words by writing them a lot of times' (M=2.41), and VLS 34 I memorize words by saying them to myself a lot of times (M=3.09). The mean of the three strategies was 2.84, meaning that the pupils frequently reported using repetition to learn vocabulary. Significant mean differences were found in the use of VLS 09 and VLS 13. In the case of VLS 09 the difference was significant between age groups 1 and 3 and, and in the case of VLS 13 between age groups 1 and 3, and 1 and 2, meaning that the youngest children reported the use of reading and writing repetition of words significantly more often than children in age groups 3 and 2. This means that there is a change in the use of this strategy, i.e. more experienced learners use this strategy less often than beginners, which indicates that they may rely on other strategies to memorize meaning.

Besides the cognitive strategy of repetition, the YLs used several memory strategies to learn vocabulary. They used lexical processing strategies (LPS) (M=3.01) and mental pegs (M=2.92). The means of these sub-categories were higher than that of repetition, which indicates that the YLs took advantage of strategies which are more cognitively-demanding than of cognitively less useful ones. All the LPS strategies were reported to be used more often by age group 1. VLS 53 'if I can't guess the meaning of a new word, I look it up in the dictionary' (M=3.17) was used similarly in the age groups. There were mean differences in the use of VLS 17 'I can guess the meaning of new words from context' (M=2.85), and they were significant in VLS 52 'I can guess the meaning of new words if I can see a picture to them' (M=3.02). The mean difference was significant between age groups 1 and 3 and 2 and 3. This finding indicates that the YLs in general processed meaning and the youngest made

the most effort in guessing the meaning of new words with the help of pictures. It can be simply because coursebooks written for them contain more pictures which illustrate the meaning than do coursebooks written for older learners. It is an important finding that the participants generally tried to guess the meaning first and then clarified it by using a dictionary, because these strategies complement each other, and contribute to successful vocabulary learning (Fraser, 1999).

The YLs also reported using mental pegs more frequently than they used repetition strategies. Learners in age group 1 used all the strategies representing mental pegs in this database more frequently. In the case of VLS 36 ‘if I imagine the meaning of a word it is easier to memorize it’ ( $M=2.82$ ), and VLS 48 ‘I can imagine the meaning of new words easily based on pictures or drawings’ ( $M=3.01$ ), significant mean differences were found. They were significant between age groups 1 and 2 in VLS 36, and between age groups 2 and 3 in VLS 48, age group 1 scoring the highest means. The reason for the discrepancy may be that the older learners do not learn from a material that facilitates the use of mental pegs, probably because they use coursebooks that do not illustrate the meaning. Also, using imagination to memorize words (VLS 36) was used more frequently by the youngest ones, probably because their learning was encouraged by using visual aids which stimulates imagination, whereas older learners did not get this support. It can also happen that older learners have to learn words which are less possible to visualize.

Another sub-category that is important to examine is the sub-category of ‘seeking practice opportunities’ within the category of metacognition (Appendix 9.3). Since out-of-school opportunities and activities, which belong to this sub-category, can have a great influence on language learning (Józsa & Imre, 2013), and, thus, on learning vocabulary, I examined strategies, such as seeking opportunities to speak more, listening to music in English, reading books in English, watching films in English, browsing the internet, and playing computer games (see also Hardi, 2014). These strategies were measured quantitatively because they were reported by the YLs in the first part of the research. Interestingly, these are the same strategies which were investigated by Józsa and Imre (2013) and found to be important in the case of secondary school learners. The fact that YLs reported using these strategies implies that they found it important to seek out-of-school opportunities to learn vocabulary. However, the findings indicate that, in general, they do not really succeed in learning vocabulary in this way. Contrary to my expectation, age group 1 had the highest scores again ( $M=2.81$ ), followed by age group 3 ( $M=2.70$ ), and age group 2 had the lowest scores ( $M=2.55$ ), and the mean difference was significant between age group 1 and 2. This

finding which can be due to the high motivation level of age group 1 reflects the change across the ages. It is also possible that there is a larger deviation in the older age groups, meaning that older learners can be divided into two groups, one who are engaged with English and others who are not, and it may be that the second group pulls the scores down. The fact that there is a greater standard deviation in the older age groups (Table 21) supports this assumption. Proceeding from the relatively low scores of the subcategory of 'seeking practice opportunities' (M=2.66), it is possible to conclude that YLs in general should apply strategies to a wider area than simply school work, and teachers should support them to be able to do so. In other words, this is also an opportunity that language teachers could take advantage of, keeping in mind that "independent language learners who are aware of their own needs, interests and goals and are able to make use of learning strategies are much more motivated than passive learners" (Toudic & Mackiewicz, 2011, p. 14).

### *Discussing the main results of individual strategies*

Besides the category and sub-category results, the examination of individual strategies also illustrates young learners' SRV learning. Therefore, in the following age-related differences are discussed in the use of individual strategies. Almost 60 % of the strategies provided evidence for age-related differences, which follows from the high means of age group 1. This age group produced the highest means in the case of 44 strategies (77.19 %), age group 2 in the case of 4 strategies (7.01 %) and age group 3 in the case of 9 strategies (15.78 %). This finding coincides with the results of the pilot study, in which age group 1 proved to be the most strategic in vocabulary learning followed by age group 3, and, most importantly, it also highlights that the strategy use of the two older age groups is rather similar.

With the exception of three strategies that showed differences between the age groups (Appendix 12.2), i.e. which did not follow the pattern of age group 1 scoring above age groups 2 and 3, age group 1 produced the highest means indicating that their self-report about strategic vocabulary learning was considerably different from the other age groups. The three strategies that did not show the pattern across the age groups were SRC 21 'if I am bored with learning words, I do something else instead (e.g. eat or drink, play, watch TV, etc.)', and SRC 54 'if I am bored with learning words, I stop it for a while and then I continue', and VLS 35 'I learn the words alone'. In the case of these strategies the order of scores was the opposite, i.e. age group 1 scored the lowest and age group 3 the highest values. The different functioning of strategies SRC 21 and VLS 35 has also been indicated from a statistical point of view in the reliability analysis (Table 19). In the case of these strategies significant age-related

differences were found, while, though, the use of SRC 54 ‘if I am bored with learning words, I stop it for a while and then I continue’ was different between all the three age groups, the mean differences were not significant. In order to highlight the differences that underlie the use of these strategies, these strategies are examined in more detail in the next paragraphs.

The strategy of SRC 21 ‘if I am bored with learning words, I do something else instead (e.g. eat or drink, play, watch TV, etc.)’, was reported significantly more often by children belonging to age group 3 ( $M=2.79$ ) than age group 1 ( $M=2.36$ ). The low means of age group 1 can indicate that the youngest learners rarely used this strategy for learning vocabulary in general. They may reject the use of this strategy, because they did not agree to stop and do something else when they were bored with learning vocabulary, but continued learning, or they were not bored at all. The reason for this can be that, based on their scores, they seemed to be motivated and self-regulated in learning words, which can be due to the fewer words they had to learn or they did not need to study so much. As for the use of this strategy, age group 2 – taking a middle position – behaved similarly to both age groups, and did not produce significant differences compared to the other age groups. Examining the use of the other self-regulation strategies used for eliminating boredom can help interpreting this result. SRC 37 ‘if I am bored with learning words, I try to learn faster to finish sooner’ was used similarly in the age groups. This strategy got the means of 3.00 in age group 3 and slightly higher in the other age groups (in age group 2 it was 3.09, and in age group 1 it was 3.23) indicating that children generally speed up vocabulary learning to get over this activity and get rid of the boredom caused by it. The finding that the youngest scored the highest in strategy SRC 37 and the lowest in SRC 21 indicates that they accelerated learning by concentrating more and were not distracted when they felt bored, i.e. they were able to control boredom and did not use avoidance strategies.

The strategy of SRC 54 ‘if I am bored with learning words, I stop it for a while and then I continue’ behaved differently in all the three age groups, though the differences were not significant. This strategy was reported by age group 2 with the highest score ( $M=2.85$ ). Comparing SRC 54 ( $M=2.77$ ) and SRC 37 ( $M=2.57$ ) implies that children want to finish vocabulary learning as soon as possible rather than postpone it. All in all, the use of these SRC strategies suggests that the oldest learners were not as much endowed with self-regulating capacity to control boredom as the youngest ones. This finding indicates that the most motivated and most self-regulated learners, i.e. learners in age group 1, can control their boredom the most successfully.

The other strategy in which age group 3 produced the highest means ( $M=3.43$ ) was VLS 35 'I learn the words alone', which belongs to the group of social strategies and reflects learners' autonomy. The mean difference was significant between age groups 1 and 2, and 1 and 3, meaning that the youngest children got more help to learn vocabulary, and the tendency of relying on the use of this strategy extensively decreases with age. The use of the other social strategy VLS 12 'someone helps me in learning new words (e.g. family member, relative, friend, etc.)' indicates the same phenomenon. In the use of this strategy significant differences were found between all the age groups. Age group 3 produced the lowest means ( $M=2.17$ ) suggesting that they rarely used this social strategy, i.e. they seemed not to rely on assistance when learning new words. Age group 2 scored a bit higher than 2.5 ( $M=2.73$ ), meaning that they generally relied on someone's help to learn words. These results suggest when learners start to learn a new language they get more help for learning words, since they may have not developed the strategies needed to learn vocabulary in a foreign language. Also, the youngest learners' metacognitive thinking and understanding may require some more assistance in terms of learning how to learn. Although older learners seem to be more independent, they may need some support, too, which implies that parents and teachers need to make sure that they have the skills and strategies to work alone when parental or other support is not used.

Age-related differences were found to be significant between all the three age groups in the case of two strategies, Meta 28 'I often review the English words in order not to forget them', and Self-mot 38 'I would like to improve my vocabulary by learning, revising, and listening more'. In the case of Meta 28 mean differences were significant between age groups 1 and 3, and, 2 and 3; the youngest producing the highest means ( $M=3.32$ ). Although age group 2 worked differently from age group 1, the difference was not significant. This finding suggests that the youngest learners felt it more important to review vocabulary than the older learners who although may have been aware of the importance of revision, did not report doing it. Another reason for the use of this strategy in age group 1 can be that the youngest learners were beginners, who had to manage a relatively restricted vocabulary size, which is much easier to control than more advanced learners' vocabulary knowledge, and, thus, may bring more success to beginners. Moreover, since repetition (i.e. reviewing and revising words) functions as a core strategy, it is employed as one of the first strategies for language learning, and beginners can turn to it safely. Although all the age groups behaved differently in using the strategy of Self-mot 38, the mean differences were significant only between age groups 1 and 3. Children in age group 1 reported using this strategy with the highest score

( $M=3.37$ ), children in age group 3 scored it the lowest ( $M=2.74$ ), and children in age group 2 also reported using it ( $M=3.04$ ). The significant means suggest that the youngest learners were more self-motivated than the oldest ones, and wanted to find ways to improve their vocabulary knowledge.

#### **6.4 Conclusion of the quantitative study**

The primary goal of the quantitative study was to analyse young learners' SRV learning and at the same time measure young learners' strategic vocabulary learning across age. The findings indicate the successful fulfilment of this dual goal.

The results illustrate that the quantitative questionnaire used in the main study reliably measured young learners' SRV learning. Although it was statistically tested that the reliability of the categories of young learners' SRV learning would improve and became acceptable with the deletion of items that behaved differently, this procedure was not implemented because these items represented strategies responsible for age-related differences. In other words, age-related differences were best illustrated by strategies that did not fit into their category, and though they decreased the reliability of the category, they were essential to analyse the strategy use of the age groups. Moreover, the reliability of the category of motivation was low, which can be due to the low item numbers of questions involved in this category, but when it was analysed in integration with self-motivation the reliability of the new category improved. The categories worked in interaction indicating the internal consistency of the structure of young learners' SRV learning.

Measuring age-related differences in young learners' SRV learning yielded valuable results. Learners in age group 1 proved to be the most strategic in vocabulary learning followed by learners in age group 2 and 3 who seemed to be the least strategic, although the difference between these two age groups was not significant. This finding suggests that there is a certain change in young learners' strategic vocabulary learning. Since pupils belonging to age group 1 reported using the strategies for vocabulary learning the most frequently, the change in strategic vocabulary learning cannot be characterized as a development or increase in the use of strategies with age. Nevertheless, it can be stated that strategic vocabulary learning changes over time, and beginners and more experienced language learners tend to use strategies in a different way. The fact that the youngest learners produced the highest means even in the case of the categories of metacognition and SRC draws the attention to different issues. On the one hand, these capacities in vocabulary learning seem to be fully

developed by the age of 10, and, on the other hand, though metacognition and self-regulating capacity can change, they may not develop with age linearly.

In sum, the use of a variety of strategies demonstrated that YLs were strategic in vocabulary learning. The evidence that the strategies fitted into the main categories of self-regulated language learning verifies the structure of young learners' SRV learning. Based on these findings we can conclude that YLs possess many of the characteristics of self-regulated vocabulary learners.

## **CHAPTER 7**

### **GENERAL DISCUSSION**

#### **7.1 Introduction**

Since the research construct presupposed connection between each part and each phase, the data which arose in the first part was complemented by the data gained in the further parts of the research. Due to this procedure, not only the newly gained data became more refined but the procedure was validated. The research was organized around three central questions. First of all, young learners' strategic vocabulary learning was addressed, and, then, based on the findings, the structure of young learners' SRV learning was characterised. Meanwhile, an instrument was developed, with which quantitative data was collected and strategic vocabulary learning and age-related differences were measured and statistically analysed. The findings of each phase regarding the three main goals were substantiated by the successive nature of the research.

#### **7.2 Answering the research questions**

The main research questions were strongly connected to the three phases of the research and served to reinforce data collection, validation and the use of the final instrument. In the following the three main questions are answered.

1. Based on the theoretical framework what kinds of strategies and self-regulated behavior are reported and demonstrated by young learners in learning vocabulary?

The first phase of the research aimed at eliciting young learners' SRV learning in general. As the results indicate the young learners used a large number of various strategies for learning vocabulary. These strategies do not only correspond with research literature (Lin 2001, cited in Oxford, 2003, p. 358), but show clear patterns of the strategy use characteristic of the YLs. They used vocabulary learning strategies (Oxford, 1990; Pavičič, 2008), metacognitive and self-motivational strategies, and employed their self-regulating capacity for learning words (Dörnyei, 2005).



The vocabulary learning strategies represented the groups of cognitive, memory, and social strategies (Oxford, 1990). The young learners taking part in the investigation used different – oral, written, and visual – forms of repetition, and employed mechanical techniques to learn vocabulary (Pavičič, 2008). Besides cognitive strategies, they memorized vocabulary by grouping words, inferred meaning, employed mental pegs and used different forms of mental representations. They employed their teachers' help, asked their mates when they did not know something, and the youngest learned words together with their family members. One important finding in the use of VLS indicates that YLs used the strategies in combination. It was found in the observation part of the research that mechanical techniques support the use of mental pegs, implying that the cognitively most demanding strategies rely on the use of cognitively shallower ones. It follows from this finding that cognitively shallower strategies are as important as cognitively more demanding ones since these strategies seem to complement each other. This finding is especially important since Schmitt (1997) has found that cognitively demanding strategies lead to higher retention in memory.

Metacognitive strategies, though, can be explored as belonging to the group of VLS (Oxford, 1990) or as mechanisms controlling self-regulation (Dörnyei, 2005), in this dissertation they were discussed as a separate category to put extra emphasis on metacognitive behaviour, since metacognition seems to widely contribute to self-regulation in language learning (Grenfell & Macaro, 2007). The results indicate that the YLs planned their vocabulary learning, sought practice opportunities, and used different types of dictionaries to check the meaning and linguistic features of words. These findings are similar to what Gunning (1997, cited in Oxford, 2003b p. 353) has found when investigated young learners' strategy use.

The YLs participated in this research used self-regulating control mechanisms to learn vocabulary, which are essential to self-regulated language learning (Dörnyei, 2005). They controlled their environment by organizing their surroundings, managed satiation by eliminating boredom, directed commitment to persuade themselves about the importance of learning, and controlled metacognition by preparing consciously for vocabulary learning.

Besides some basic motivational factors, the YLs used self-motivational strategies for learning vocabulary. They considered themselves to be self-efficient and skilful in learning words and were satisfied with the way they learnt vocabulary. They used different self-rewarding strategies to facilitate their vocabulary learning and were able to lower their anxiety.

These different aspects of vocabulary learning the YLs relied on justified the attempt to discuss strategic learning in the broader framework of self-regulation instead of focusing on a particular feature, such as vocabulary learning strategies. Based on the relevance of the different aspects, the categories of self-regulated vocabulary learning were formulated in the first phase of the research. These categories partly reflect the constituents of adult learners' motivational vocabulary learning (Tseng and Schmitt, 2008). The reason for the existence of the categories was also supported by the quantitative analysis, meaning that the two types of data supplement each other. Therefore, when answering research question 2, I discuss this finding from the quantitative point of view.

2. Based on the qualitative data collected in the first phase of the research, to what extent can a quantitative research instrument be developed which adequately reflects the underlying qualitative categories emerged, and which young learners of various ages are able to effectively use?

The categories outlined in the first phase served as a point of departure to broadening the construct of strategic vocabulary learning (Tseng et al., 2006). The quantitative questionnaire which was developed based on the qualitative data proved to be useful to confirm the construct of young learners' SRV learning. Although the reliability of the categories was quite low in the pilot study and it would have improved with the deletion of some of the strategies, the deletion procedure was rejected, since the strategies that behaved differently were found to be responsible for age-related differences. Furthermore, the overall reliability of the questionnaire improved and the reliability of the categories became acceptable in the main study by increasing the number of participants involved in the research, which is a general tendency of statistical analysis, i.e. the larger the sample, the more chance of finding significant relationships. However, different wording of the statements and a different classification of the items would have brought different results. The reason why further alterations were not made was that the results seemed to represent the categories of young learners' SRV learning, implying the viability of the construct. Consequently, based on the classification in this research, it can be stated that the categories of VLS, metacognition, motivation, self-motivation, and self-regulating capacity constitute young learners' SRV learning. The finding that the categories were significantly correlated with each other also supports the vitality of the construction.

Besides the vitality of the categories, another important result of the second phase of the dissertation was that the results of the pilot study fell in line with the results of the

qualitative analysis, and, thus, the results of the quantitative analysis support the reliability of qualitative data. A closer look into young learners' SRV learning based on the quantitative data let us conclude that the YLs used a variety of strategies, controlled their activity, were aware of what they did to learn, and, thus, they were strategic and self-regulated in vocabulary learning. All in all, the results also show that all the participants were able to make sense of the questions and could successfully fill in the questionnaire.

3. Based on the quantitative questionnaire developed in the second phase of the research, what patterns of young learners' self-regulated vocabulary learning are revealed in a large-scale investigation within and across age groups?

The main goal of the last phase of the research was to use the final quantitative instrument, and to explore and analyse age-related differences in self-regulated vocabulary learning. As it was argued in answering research question 2, the final questionnaire reflected the categories of young learners' SRV learning and reliably measured the whole construct. Although the instrument can be used to measure a variety of aspects of strategic vocabulary learning, age-related differences between and within the age groups were the focus of this research.

Surprisingly, the youngest learners reported using the most strategies involved in the questionnaire for learning vocabulary, and they were the most motivated to learn. Moreover, their self-regulating capacity and self-motivation were higher than the pupils' in the other two age groups. However, regarding the category of metacognition their scores were the lowest, but still above the mean of 2.5, and the mean differences between the age groups were not significant in this category. Since the learners in age group 1 had been learning English for some months or a year and some months in the lower section of the primary school and had only two or three lessons a week, they can be regarded as beginners. Being a beginner can be concomitant with being motivated, since in the first two years of language learning, in grades 3 and 4, teaching normally happens in a playful manner, the materials are interesting and colourful, and, thus, motivation can be maintained more easily than in the upper section. Moreover, learners who have been learning a foreign language in school setting for one or two years do not have much accumulated knowledge, i.e. the size of their vocabulary may be lower because they had not learnt as many words as the older learners and this vocabulary may be easier to recall suggesting that they can succeed more easily relying on their self-regulating capacity and self-motivation. Peckham (2008) investigating university students' self-regulated vocabulary learning has found that those who had lower scores were more self-

regulated and not those who were more advanced. This finding can provide an explanation for young learners' self-regulated vocabulary learning, as well, indicating that it is simply easier for the youngest since they have fewer words to deal with. The high level of motivation and self-regulating capacity of age group 1 can be further explained by the U-shaped pattern in language learning, which stands for more general learning processes (Sjoholm, 1989). This pattern can provide an explanation for the relatively low level of strategic vocabulary learning of age group 2 and the slight increase in some of the categories in age group 3.

Significant differences were found in the individual strategy use of the age groups. The findings indicated some change in the strategic learning of young learners, though this change cannot be described as a permanent development. However, there is a certain tendency in YLs' strategic vocabulary learning. Although this tendency can be captured in the use of a number of strategies, it can be best illustrated in the use of the social strategy of asking for help in vocabulary learning. While the youngest learners relied on someone's assistance when learning new words, no one helped older students, implying that beginners were given some help, but more advanced learners succeeded alone. Another explanation for the youngest employing social strategies can emphasize the external assistance needed to the development of learning how to learn. Since learners in average primary schools in Hungary start learning a foreign language in grade 3 this is the time to shape their language learning behaviour and both teachers and parents may regard it their duty to help the youngest learners in learning vocabulary. It is also possible that the more experienced learners were just left alone with learning the language, which can be a result of various things. However, they may need a new kind of support they do not get, such as help in using the words in context, i.e. meaningful communication with somebody.

Significant differences were found in the use of the self-motivational strategy that explored efficacy in vocabulary learning, indicating that the learners in age group 1 intended to learn more and revised words more often to make their learning more efficient. However, this finding and that learners in age groups 2 and 3 were generally the less self-regulated can be explained by the huge changes in the development and proficiency which create different context for vocabulary learning. It is also possible that the youngest learners' need for accepting and going along with teachers' rules helps to determine their learning behaviour, and this is reflected in their evaluation of their own learning efficacy.

In sum, the quantitative questionnaire proved to be a reliable instrument to measure young learners' self-regulatory vocabulary learning, and highlighted important differences in strategy use across and within the age-groups.

## **CHAPTER 8**

### **SUMMARY AND IMPLICATIONS**

#### **8.1 Summary**

In this dissertation I investigated young learners' strategic vocabulary learning in the framework of self-regulation, which is a relatively new trend in the study of second language acquisition. The target population of the research was YLs, whose self-regulated vocabulary learning process has not yet been investigated in the Hungarian context. Self-regulation provided a rich theoretical ground for the research. After having outlined the terminology that gave the background for the research theoretical issues were discussed in detail. The research had various goals. The main goals were to assess young learners' strategic vocabulary learning, to establish the structure of self-regulated vocabulary learning, and to define age-related differences. Relying on the data gained by the qualitative research, a further goal was the creation and development of a quantitative instrument that is suitable to measure young learners' strategic vocabulary learning adequately. To satisfy these goals the research was built up systematically to ascertain the feasibility of each part. Different data collecting techniques were applied, such as open-ended, focus group, retrospective and structured interviews, classroom observation, and Likert-type questionnaires, to gain reliable data and increase the validity of the research. The quantitative research was strongly based on the results of the qualitative research parts. The combination of data collecting methods built upon each other ensured consistent and abundant data.

Strategies were investigated in the framework of self-regulation, and were restricted to the items of strategic learning participants reported using in the course of vocabulary learning. The strategies were grouped in the main categories of self-regulated language learning representing motivation, self-motivation, vocabulary learning strategies, metacognition, and self-regulating capacity. Attempting to typify the underlying categories of young learners' SRV learning, the dissertation aimed to provide a comprehensive view about the strategic behaviour of young learners in learning vocabulary in EFL setting in Hungary.

The results indicated that the YLs were strategic in vocabulary learning. They reported and in the successive parts of the research confirmed the use of a number of strategies that were characteristic of their vocabulary learning in general, and represented the main categories of self-regulated vocabulary learning. The final quantitative instrument proved to

be appropriate for measuring strategic vocabulary learning and its different aspects. The specific focus in the present dissertation was on age-related differences, which were explored to find prevailing trends in young learners' self-regulated vocabulary learning.

The structure of the whole research, as I have mentioned above, was based on the systematic data collection of each part. Since Hungarian learners' vocabulary learning strategies have not been investigated so far, this method proved especially useful to scrutinize the main aspects of young learners' strategic behaviour. The reason for restricting the examination of strategic language learning to vocabulary was to find a specific field to establish the research construct and obtain straightforward results which characterize Hungarian learners' language learning. Therefore, the most important contribution that this dissertation can offer to international research on second language acquisition is the profile of Hungarian language learners' strategic thinking in the particular field of vocabulary learning. Another significant contribution of the research is to add on the knowledge of young learners' language learning process, which still seems to be a relatively undervalued field in both Hungarian and international SLA context (Nikolov, 2003a).

Hungarian pupils' vocabulary learning was investigated from the perspective of self-regulation, which opened the door to explore the multiple views of strategic thinking. The structure of self-regulated learning had been underpinned by international literature. The present dissertation adds on the knowledge by providing an outline of the primary constituents of young learners' self-regulation. The structure of young learners' SRV learning characterizes the most important aspects of the vocabulary learning process. Getting insight into the micro structure of strategic learning the findings highlighted that the Hungarian learners' employed a wide variety of strategies to learn vocabulary and their strategic behaviour changed with age. The significance of this finding resides in the discovery that the youngest learners who have started to learn English not long before were the most strategic in vocabulary learning, implying that the conditions of self-regulated learning develop right at the beginning of learning a new language.

Another important contribution to the research on young learners' vocabulary learning is the quantitative instrument that was created and developed in the dissertation. It may come in useful to measure young learners' strategic vocabulary learning in other language contexts, giving scope for international comparisons in self-regulated vocabulary learning.

## 8.2 Limitations

The limitations of the research naturally come from the nature of the different learning strategies. A number of issues have been raised in literature review in connection with their importance and usability, which range from the focus on the elicitation of strategies to their actual practicability, and universal application. The use of metalanguage, necessary to elicit data, a prerequisite of successful research (Gósy, 1999), was sufficient in this research because most of the participants seemed to be aware of their strategic learning and were able to comment on what they were doing to learn vocabulary. Although the learners reported their use of a variety of strategies, it is difficult to decide how far these strategies contribute to language learning. Good language learner studies have pointed to the contribution of learning strategies, arguing that most successful learners apply a broader diversity of more complex or refined strategies, while poor language learners rarely use strategies or do not use them effectively (Chamot & El Dinary, 1999; Porte 1988; Vann and Abraham 1990). It is also difficult to decide which strategies are the most useful. Besides the level of language knowledge and proficiency, it depends on the characteristics of the individual learner and the learning task. Individual strategy use in this research was restricted to some case studies of successful language learners, and since strategy use was generally addressed, task-based strategies were not investigated.

Another major concern is that what learners actually do when they learn vocabulary can be quite diverse in form and nature. This issue points to the inadequacy of collecting quantitative data alone. Only a very restricted number of strategies can be observed, and since most of the strategies involve mental processes which are not open to observation and investigation, researchers must rely on each learner's own evaluation of these internal processes. Collecting data on participants' self-evaluation by any kind of research method, such as interviews, learning diaries or questionnaires has a number of disadvantages. First of all, self-report data reveals what learners think or believe they do and not what they really do (McDonough, 1995), and should therefore be interpreted accordingly. The primary data collecting methods used in the research, i.e. the questionnaires and interviews provided data on participants' own perceptions of their language learning processes. Thus, it is not obvious whether the responses reflected just learners' beliefs about their use of strategies in learning vocabulary or they reported their actual use of the strategies. Ensuring the consistency of the research the data based on participants' self-report was complemented by the data gained by classroom observation. Since the results fell in line with the interview data, the observation

method contributed to establishing the reliability of the research (Szokolszky, 2004). The personal interviews created a friendly atmosphere, in which the participants felt comfortable and communicative, and since questionnaires were anonymous it can be assumed that they were relaxed and honest, and, thus, potentially provided reliable information. Further research should address the issue of what learners actually do to learn words. If the studies in this dissertation had been triangulated by asking and observing teachers, and collecting data on how children were taught vocabulary in school and how varied teachers' practices were in this respect, a more refined picture could have been formed about young learners' strategic vocabulary learning. This kind of investigation, however, would have been beyond the scope of this research.

There are some further issues which though relate to the main focus of the dissertation were not addressed because of conceptual and practical limitations. Young learners from different primary schools took part in the research. The participants learnt at local primary schools and were not chosen by their language abilities; therefore, they represented the population of YLs in Kecskemét, Hungary. Since data collection happened only in this town in the middle of Hungary, and learners from other types of settlements and from other parts of Hungary were not involved, the results can be generalized to young EFL learners in this town, and in similar types of schools throughout Hungary. Administering the final instrument in other schools in different parts of Hungary would make comparisons possible.

Although the fact that participants were not chosen by their language attainment raised the reliability and thus the possibility of generalizing the data, considering the success of data elicitation and instrument validation it caused some difficulties. As I have already indicated, in the semi-structured interview part of the dissertation some of the learners did not provide adequate data to discuss, and in the questionnaire part some might have taken a middle position. However, these problems were addressed in the relevant phases of the research, and were eliminated by conducting a number of interviews and offering four options in the quantitative instrument. Despite these difficulties the research proved to be successful in terms of collecting useful and rich data by the research instruments.

The reason the three age groups were used to elicit young learners' strategic vocabulary learning was that due to this distribution a relatively low number of participants who embodied the population of young learners could be managed. Although the results justified the existence of age-related differences, more sophisticated results could have been gained by analyzing vocabulary learning in each class of the primary school separately or



studying vocabulary learning strategies in a longitudinal investigation. A research like that, however, would have gone beyond the scope of this dissertation.

Further limitations are due to the construction of the quantitative instrument. Although it was statistically tested for reliability, and proved to be reliable, formulating the questions in a different manner might have brought different results. A clearer verification of the categories would have been possible with differently formulated questions, or with another way of grouping. Since the questioner worked with these participants, which may be the result of the carefully constructed research, further testing and clarifications were not made in this dissertation, but would be beneficial for further research.

All in all, this dissertation has been written in the hope that by outlining the working of the constituents of young learners' self-regulated vocabulary learning and providing evidence for age-related differences in strategic vocabulary learning contribute to a better understanding of young learners' self-regulated language learning behaviour. Here, I have to refer back to the quote presented at the beginning of the dissertation. I agree with Grenfell and Harris (1999, p. 54), who have argued that it is difficult to look into the humans mind and see what is happening there, but despite these limitations, the data acquired by researchers in the field of strategy research does provide considerable 'food for thought'. The results of this dissertation present meaningful implications for L2 instruction, which hopefully will add to the field of learning English as a foreign language by providing an insight into the process of Hungarian pupils' strategic vocabulary learning and self-regulated behaviour.

### **8.3 Implications**

In this section, I first outline the general implications of the research and then discuss the more specific implications for teachers and teacher trainers.

The fact that learners in age group 1 (3<sup>rd</sup> and 4<sup>th</sup> graders) reported employing the categories of strategic vocabulary learning to the greatest extent is a surprising finding. However, the reason for their high scores may not come directly from their high self-regulation, rather it can be the result of their relatively low vocabulary knowledge, and the way vocabulary is taught them. Based on the number of weekly English lessons and that the youngest participants have been learning English for one or two years in the primary school, it can be supposed that the size of their vocabulary is not large, and, thus, they have to work only with a manageable number of words, which must be easier than dealing with a more

extended vocabulary. Moreover, at the lower section of the primary school the applied teaching techniques and the learning material can be motivating for beginners. These two aspects can result in young learners' motivated vocabulary learning that is manifested in the use of their strategies, as well. This implies that motivation should not only be established but should be maintained in the process of language learning, and older learners' should be encouraged to employ more strategies for self-motivation.

Older learners, on the other hand, have to deal with a bigger size of vocabulary and since they have been learning English for at least two years they are supposed to have learnt a huge number of words. "Generally, learners [in Hungarian state schools], on average, appear to add 300 to 400 vocabulary items to their English lexicons each year at a rate and volume of progress that appears to be about 50% greater than the national curriculum requirement" (Milton, 2009, 81–82). The large size of vocabulary is more difficult to manage and may not provide learners with easy success. Furthermore, teaching techniques are different in the upper section of the primary school, instruction and assessment become stricter and the material to learn is considerably greater. These things can explain why motivation and self-regulation seem to be decreasing in the course of young learners' EFL vocabulary learning, and these can be reflected in their marks and in their liking of English (Table 28). The change in the marks and liking of English clearly indicates that the composition of the groups changes, and some pupils appear to be decreasing in interest, and their grades are lower. Perhaps, two kinds of groups are developing in the later years, one from those who are interested, motivated, and strategic, and the other from those who are not.

The lower strategy use of older learners can be explained by other trends, as well. Learners who have been learning EFL for more than two years could have developed a certain way they learn vocabulary, suggesting that they may use certain strategies for learning words while they ignore other ones.

The fact that older learners reported using fewer strategies for learning vocabulary can also be explained by the automatization process (Schmidt, 1995). Strategies that are used by YLs can be slightly automatized in the language learning process, and, therefore, the longer they have been used, the more difficult they may be to recall due to the fact that they are automatized to some degree. The results of the use of mental pegs can provide evidence for this. Out of the three strategies that involved mental pegs there were significant differences between the age-groups in the use of two (Appendix 12.2). Children in age group 1 scored the highest in the case of VLS 36 'if I imagine the meaning of a word it is easier to memorize it' and VLS 48 'I can imagine the meaning of new words easily based on pictures or drawings'.

Since the use of these strategies requires some cognitive effort, they are supposed to be used by older and more experienced language learners, as well. The result that they scored lower than learners in age group 1 indicates that, though they use these strategies, many of the oldest children cannot recall it. It is also possible that teachers of younger learners also promote using these strategies, whereas older learners are not encouraged to do so, and supposed to use them anyway. All this suggests that learners' metacognitive thinking and language awareness should be supported throughout the whole learning process.

Age-related differences indicated that pupils belonging to age group 2, who have been learning a foreign language for some time but are neither beginners nor experienced language learners, may need the most assistance in terms of metacognition and self-motivation. Therefore, as it has been indicated in the literature review (Dörnyei, 2001a,b), language learners' motivation and self-motivation should not only be established at the beginning of foreign language instruction but should be maintained throughout the process. Moreover, language learners should be empowered to utilize their self-regulating capacity, and their metacognitive thinking and linguistic awareness should be raised to enable them to become more self-regulated in learning vocabulary. All these findings underline that language teachers should find ways to integrate the concept of self-regulation into the curriculum. The special implications of this for teachers are discussed in the next section.

The comparisons of the age groups at both category and strategy levels indicate that learners in age groups 2 and 3 belong to the same group. Also, based on their marks and liking of English (Table 28) children in age groups 2 and 3 seem to belong to the same subset, which fact supports the findings of the whole research. Consequently, the YLs possibly do not represent three different populations, but belong to two different groups, which can be typified as beginner and intermediate language learners (Cohen & Aphek, 1981), and the boundary of the different strategy use can be the lower and upper sections of the primary school. Moreover, there seems to be a further division in the groups of learners who are not beginners. Some of them seem to be motivated and strategic, while others seem to lose interest and become less motivated. Pupils belonging to this latter group may as well become less strategic and self-regulated in vocabulary learning, which fact can explain the decrease in the overall scores of the two older age groups. This finding should remind practitioners that the focus of strategy trainings should be different in the case of beginners and more advanced language learners. While beginners should be introduced to the variety of strategies, advanced learners should be encouraged to put more energy and endeavour, i.e. 'creative effort' (Tseng et al., 2006, p. 81) in vocabulary learning.

The research results let us conclude that young learners' self-regulated vocabulary learning needs some support. The categories of young learners' SRV learning indicate the fields where guidance should be provided to language learning. Although evidence can be found worldwide for strategy trainings (Graham & Harris, 2003; Harris, 2003; Macaro, 2001), this aspect of language teaching seem to be neglected in Hungary. Moreover, as I have discussed in the literature review, strategy trainings can be seen from a more critical perspective. Rees-Miller (1993) has pointed out that it is difficult to say that better performance is the result of the use of particular strategies. Nikolov (2003b) has argued that the most important issue in the field of strategy training is to answer in what ways and to what extent strategy use contributes to a higher level of language knowledge. An overview of young learners' strategic vocabulary learning helps us to identify the areas where special attention is needed. In this respect, the findings of this dissertation override the need for simple strategy trainings, emphasizing the complex nature of young learners' vocabulary learning behaviour. The results brought to light the areas, i.e. the categories of young learners' SRV learning, which should be improved in order to make young learners' vocabulary learning easier and faster. What pupils need besides introducing them to new strategies for vocabulary learning is to support their self-regulated behaviour, i.e. on the one hand, they should be trained to learn, use, and be aware of vocabulary learning strategies and, on the other hand, their self-regulating capacity should be developed (Table 21, Figure 4). This finding implies that although the traditional methods in strategy trainings (Chamot, 2005, Harris, 2003, Oxford 1990) which put the emphasis on introducing students into strategies should be kept, they have to be supplemented by the issues of self-regulation. The broader implication of this finding is that although language learning strategies should be in focus (Oxford 2011; Rose 2012), they can be handled as one of the aspects of strategic language learning.

### **8.3.1 Implications for teachers and teacher training**

The most important findings of this research provide implications for teachers on how to make young learners' SRV learning more successful and effective. The implications discussed here are embedded in good practices in Early Language Learning in Europe (ELLiE).

First of all, children need to be motivated to learn vocabulary, and since learning EFL is almost completely restricted to the school setting, teachers need to be continuously finding

ways to provide such motivation for their learners. One of the basic means of motivation should be to choose motivating course books and teach motivating material appropriate to learners' ages and needs. Although the material itself can be appealing, it should be complemented with motivating teaching techniques, which can influence the way learners learn individually. Learners' motivation should be maintained by relying on their intrinsic interest and need for achievement. Motivation and self-motivation seem to vary with age, which implies that different types of motivation should be applied in the case of learners of different ages. The foreign language materials and resources available in a school have an important role in sustaining children's foreign language learning over time (Enever, 2011, p. 78). Colourful picture books, tales, songs and rhymes can motivate pupils in the lower section. In the upper section, teachers should find the corresponding material, and teach by using lots of pictures, stories and songs, which older learners find interesting. While the youngest can be motivated by the relatively quick success of vocabulary learning, older learners, whose motivation was shown to drop off in this dissertation, should be encouraged to use their knowledge, i.e. teachers should find ways to consolidate learners' knowledge and to raise their awareness of how much they have already learnt instead of focussing on what they do not yet know.

In addition, young learners need to be encouraged to develop their metacognitive skills as quickly as possible. Although, the mean of the category of metacognition ( $M=2.92$ ) was relatively high in this research, and there were no significant mean differences between the age groups, there was a slight drop in the scores, which remarks us that metacognition needs to be improved in the course of language learning. Pupils need to be taught how to learn a foreign language successfully. Their awareness of what they do when they learn English and how they do it should be raised at regular points during their language learning process. Teachers should introduce learners to a broad range of strategies which they can apply for themselves, designed to make it possible for learners to choose the ones that provide the best approach to their learning goal and the best fit for their individual characteristics. They should be trained in how to monitor and organize their language learning.

Young learners should also be introduced into the concept of self-regulation. Although some of the participants of this research reported the use of various strategies for self-regulation with which they tried to override boredom and stress, organized their learning environment, and tried not to be distracted from learning, the relatively low mean of the category ( $M=2.80$ ) suggests that YLs in general do not frequently apply these strategies. The natural way of using self-regulating strategies, perhaps already encouraged by parents and

teachers, can be further encouraged in pupils making them aware of them. The way they control their metacognition, commitment, emotions, satiation, or environment should be discussed in class, and their attention should be drawn to new strategies. I do not think, however, that introducing an endless list of strategies would be necessary, but thought-provoking discussions might be generated among language learners. This is similar to what was found in the ELLiE project. Experts say that “FL teachers need to be aware of changes in young learners’ attitudes, motivation and self-concept. This can be done through providing opportunities for YLs to comment on the FL learning process” (Enever, 2011, p. 59). These opportunities would be beneficial for YLs with different characteristics, since a range of self-regulatory strategies could be elicited and discussed, which would help them choose the most suitable ones for themselves. During these occasions, for instance, strategies for eliminating boredom and overriding stress might also be discussed (Hardi, 2013).

Some more special implications can be drawn from the results of this dissertation at the level of vocabulary learning strategy use. Repetition strategies seem to be key vocabulary learning strategies used by the YLs in this research. This finding falls in line with that of Pavičič (2008), who found that YLs frequently use these strategies for learning vocabulary. This finding – knowing that the spaced repetition of words promotes long-term memory retention (Baddeley, 1997) – reminds us of the importance of these strategies and implies that teachers should encourage students to more intensely use the different forms of repetition for learning vocabulary. However, the forms and ways of repetition are serious issues in foreign language learning. If repetition is based on the mindless memorization of L2 word list with their Hungarian translation, it is not a useful strategy, but as soon as the words are taken out of a meaningful context, they can be learnt successfully by repetition (Hulstijn, 2000). For example, repetition should be spaced, i.e. the words should be repeated regularly at times, and repetition strategies should never be applied in an isolated manner, but should be used in combination with a number of other strategies. Since the teaching techniques have effects on learners’ strategies (Pavičič, 2008), teachers should choose carefully the way they teach, and the way they assess learners’ knowledge. For instance, if the assessment of newly learnt vocabulary regularly relies on isolated word lists, learners are encouraged to learn lists of words without their meaningful context. Therefore, this practice should be avoided in language teaching (Budai, 2013; Orosz, 2008), and instead contextual introduction, revision, and assessment should be applied.

Another finding has shown that there is a considerable difference in the utilization of social strategies between the age groups, the youngest employing it to a great extent for

learning the meaning of words with someone's help, but the oldest learners do not frequently use this strategy. This finding implies that social strategy use goes through some changes, meaning that it decreases across the ages. The strategy of cooperation is generally applied to help the youngest learners learn L1 – L2 word lists, but the help seems to be restricted to assisting memorization, while meaning-making seems to be totally absent. I think social strategies should be present throughout the course of language learning, and instead of allowing them to disappear they should be strengthened by altering their function, i.e. using them with a different goal that does not merely indicate help for memorizing word meaning but facilitates language use by communication. The use of the social strategies can also be related to the socio-economic status of the family. Parents' educational background is closely related to successful foreign language experiences (Enever, 2011, p. 68) and "parents' knowledge and use of the FL professionally has a significant impact on children's FL achievement" (Enever, 2011, p. 7). Therefore, parents who master the language should provide communication-based creative help for their children, and the other members of the family should also be motivated to help the language learner in an inspiring way. In order to create needs in learners to utilize social strategies, they should be provided with opportunities based on the interaction and help of other learners. In a school setting learners can learn in pair work and group work how to cooperate and how to help each other, and language teachers should encourage these forms. Also, communicative homework could be given to learners, who could then be expected to find ways to accomplish such tasks with either family members or classmates.

The finding that YLs very rarely utilize out-of-school opportunities for vocabulary learning warns that they need encouragement and support in employing these strategies. It is especially important, because 'self-initiated vocabulary learning' together with 'spontaneous (incidental) vocabulary learning (acquisition)' (Pavičič, 2008, p. 100) seem to be the primary aspects of the whole learning process. Therefore, emphasis should be placed not only on the strategies of formal vocabulary learning, but language learning should be seen from this broadening perspective. "All language teachers know that one of the keys to effective learning is the teacher's ability to show students of any age how their newly acquired language skills relate to their immediate or future needs" (Toudic & Mackiewicz, 2011, p. 12). This implies that teachers should encourage YLs to make use of out-of-school opportunities with the purpose of learning the foreign language, and, thus, learning vocabulary. Learners could meet these forms of vocabulary learning opportunities in a school setting, as well. Enever notes that "teachers should enhance pupils' awareness of the possibilities for out-of-school contact, by

incorporating tasks that bring the out-of-school context into the classroom” (2011, p. 7), that is, it is possible to watch films with or without subtitles, listen to songs, read books, browse different web pages on the internet, or use online dictionaries in class as real language use rather than simply as class exercises. Teachers should give presentations in class to show how these activities can be used for vocabulary learning out-of-school. If learners, for instance, meet several kinds of online dictionaries in class, they will know which of these dictionaries they should use to build their vocabulary (Felvégi, 2013). These activities can also be built into the curriculum. Intensive reading, just to mention one segment of language learning, could be introduced with the help of graded readers which by reducing the level help learners understand and learn the language. The utilization of out-of-school opportunities also has broader implications. Since the out-of-school exposure, especially subtitled films and television, has a great influence on children’s FL achievements, ‘the increased availability of undubbed TV programmes for children should be considered” (Enever, 2011, pp. 6–7).

If there are a number of implications for teachers there are also implications for teacher training. The quality of teacher education is important in developing teacher expertise (Enever, 2011). First of all, teacher trainees should be introduced into the concept of strategic and self-regulated language learning, as they themselves may not have fully considered it. They should learn about the several components and aspects of these concepts, such as motivation, self-motivation, metacognition, self-regulating capacity, and learner strategies, and they should be made aware of the age differences’ in young learners’ self-regulated language learning. They could be taught to use several strategies themselves, and trained in how to teach these strategies in order to provide support for language learners. Most importantly, however, pre-service teachers should themselves be self-regulated, strategic, and autonomous language learners in order to be able to help their students shape these qualities. Consequently, teacher training should not only concentrate on the adequate language and methodological knowledge of would-be teachers, but should also focus on their strategic knowledge and self-regulated behaviour as language learners themselves.

#### **8.4 Future research**

The findings of this dissertation open up new ways of investigating young learners’ language learning. A revised Likert-type quantitative questionnaire similar to the one developed in this dissertation could be used for further purposes. Administering it with further participants to



measure young learners' SRV learning would be useful. Similar research with this instrument could either bring the same results or could bring to light some special features of strategic vocabulary learning. In both cases researchers could get insight into young learners' self-regulated vocabulary learning and could make sense of the results from a specific point of view. Using a revised questionnaire in different contexts, would allow comparisons in national and international fields.

Since the present research focused on the main categories of self-regulated vocabulary learning that represented the strategies participants reported using, a more refined picture of young learners' strategic language learning could be achieved by looking more deeply into the dynamic interaction between these strategies and the work and relationship of the sub-categories. For instance, the connection between social strategies and seeking practice opportunities could be explored further; the relationship between self-efficacy and anxiety could also be usefully examined in greater depth. Investigations like that would be valuable to highlight the specific and various aspects of strategic vocabulary learning.

Although, in this dissertation, the investigation of strategic language learning was limited to learning vocabulary, in order to broaden the perspective, the strategies belonging to the categories of self-regulated learning can easily be transformed to examine language learning from a general point of view. Furthermore, looking at other segments of language learning in the framework of self-regulation can also prove beneficial to language learning in general. Starting from these perspectives, discussions can be generated between foreign language teachers and specialists for the benefit of language learners.

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## **APPENDICES**

### **Appendix 1: List of abbreviations**

CEFR: Common European Framework of Reference

EFL: English as a Foreign Language

ELLiE: Early Language Learning in Europe (research project)

FonF: Focus on Form

FL: Foreign Language

IAVLE: Initial Appraisal of Vocabulary Learning Experience

IEA: International Association for the Evaluation of Educational Achievement

L1: first language or mother tongue

L2: second language

LLS: Language Learning Strategy

MEU: Morpheme Equivalent Unit

PAVLT: Post-Appraisal of Vocabulary Learning Tactics

SILL: Strategy Inventory for Language Learning

SD: Standard Deviation

SLA: Second Language Acquisition

SPSS: Statistical Package for the Social Sciences

SRC: Self-Regulating Capacity

SRCVoc: Self-Regulating Capacity in Vocabulary Learning

S<sup>S</sup>R: Strategic Self-Regulation

SRV learning: Self-Regulated Vocabulary Learning

VLS: Vocabulary Learning Strategies

VOLSQUES: Vocabulary Learning Strategy Questionnaire for Elementary Schools

YLS: Young Learners



## Appendix 2: Consent forms

### Appendix 2.1: Consent form for school teachers and school management

#### NYILATKOZAT

A .....

általános iskola igazgatója és angoltanárai hozzájárulunk, hogy **Hardi Judit**, a *Kecskeméti Főiskola Tanítóképző Főiskolai Kar Modern Nyelvek Intézetének* munkatársa intézményünkben – a tanulók és a hozzájárulásukat adó tanárok bevonásával – PhD kutatásához adatokat gyűjtsön.

Kecskemét, .....

.....

Iskolaigazgató

.....

Angol nyelvtanár

### Appendix 2.2: Consent form for children's parents

#### NYILATKOZAT

Alulírott .....(szülő) hozzájárulok, hogy ..... nevű gyermekem által idegennyelv-tanulásáról közölt adatok, gyermekem anonimitásának megőrzésével, tudományos kutatás céljából felhasználásra kerüljenek.

Kecskemét, .....

Szülő aláírása: .....

### **Appendix 3: Interview questions used in Phase I part 1**

The major topics of the personal interviews organized in 6 groups:

- 1 Asking for background information (grade, age, number of classes per week, other languages learnt besides English)
- 2 Gathering general information about learners' attitudes and motivation towards English language and language learning. (liking of English, attitude to vocabulary learning, extrinsic and intrinsic, and integrative and instrumental motivation)
- 3 Investigating vocabulary learning strategies (cognitive, memory, social, and lexical processing strategies)
- 4 Metacognitive behaviour (plans for learning, organizing, seeking practice opportunities)
- 5 Asking learners about self-confidence, including anxiety and self-efficacy, and about self-rewarding strategies, skilfulness, and satisfaction with their use of strategies and with the learning outcome
- 6 Asking questions about learners' self-regulatory capacity in vocabulary learning

## Appendix 4: Case studies

### Appendix 4.1: Case study 1

#### *Year 3, female (Interview 1) – Hungarian*

*Mikor kezdted az angolt tanulni?*

Szeptemberben.

*Hány órád van egy héten? 3. Hétfőn az első óra, szerda meg csütörtök az 5. óra*

*Szeretsz szavakat tanulni?*

Igen, 'Én szeretem az új dogokat és így érdekel {a szótanulás}, és így sokkal több kedvem van hozzá, mint akinek nincs. És nálunk, a családban mindenki angolt tanul...

*Miért fontos sok szót tanulni?*

Ha megtanuljuk az angolt és utána vizsgázunk belőle akkor tudjuk, meg ha kimegyünk Angliába akkor tudni kell a szavakat.

*Hogy tanulsz a szavakat?*

'Anyukámmal néha össze szoktunk ülni és akkor, amit most tanultunk innen is szokott kérdezgetni, szótárból, és akkor én mondom angolul, ő meg magyarul.

Én még néhány szót nem tanultam és akkor én felolvasom, hogy mit jelent. Anyu, ha mondja, hogy nem jól olvasom, akkor segít a kiejtésben.

*És ki szokott még segíteni?*

Apukám meg az anyu, van tesóm csak ő még kisebb nálam.

*Ha új szót látssz, azt hogy tanulsz meg?*

'Ha új szavakat tanulunk Gabi nénivel, ismétljük utána, ha úgy látja, hogy az osztály többségének még nem annyira megy, akkor még jobban ismételtetjük. És utána fölírja a táblára és leírjuk a szótárba.

*Otthon is foglalkozol vele?*

Persze, mert minden hétvégén tanulunk, mert felmérőt írunk belőle a következő héten.

*Szoktál izgulni a szótanulás miatt?*

'Felmérőkor nagyon izgulok, mert rám esik az összes tanulás, de azért anyukám este gyorsan kikérdezi.

*Hogy jegyzed meg a szavakat?*

'Én nagyon sokat szoktam tanulni az angolt, mert mindig átolvasom. Sokat szoktam tanulni, így mindig megjegyzem. Kiolvasom, és akkor mindig elképzelem, és akkor megjegyzem.

*Le is szoktat őket írni?*

'Igen, többször leírom, mert pl. ha egy verset tanulunk, akkor pl. leírtuk, hogy a „monkey” az majmot jelent, de hogyha tanuljuk, hogy „five little monkeys” akkor megint leírjuk, mert vannak olyan szavak a versben amiket még nem tanultunk, de a „monkey”-t már tanultunk, de azt akkor még egyszer leírjuk.

*Csoportosítani is szoktad a szavakat?*

'Van mikor leírtuk a számokat..., meg volt mikor külön írtuk pl. az állatokat, de utána összecsoportosítottuk, mert őőő..., lehetett mondani hogy milyen állatot tanulunk meg és akkor azokat leírtuk, hogy például „delfin” és akkor „dolphin” és akkor így könnyű.

'Külön írtuk a számokat, meg az állatokat, de azután összecsoportosítottuk. Én úgy tanulom meg, hogy a füzetből sorba, de anyukám összevissza kérdez. Van, hogy az összes állatot kikérdezi, de volt már olyan esetem, hogy összevissza tanultam, ő meg sorba kérdezte.

*Már sok szót tudsz angolul?*

Hát igen, mert leírjuk őket, és akkor megtanulom.

‘Sok szót tanultunk meg karácsonyhoz kapcsolódóan, például a karácsonyi dolgokat úgy egybe tanultuk, pl. hogy „angyal” és „karácsonyfa”.

*Könnyen megtanulod a szavakat?*

Igen, de amikor tanulunk ‘Gabi néni meg tudja mondani, hogy például a „triangel”-re úgy kell emlékezni, hogy háromszög, hogy benne van a „tri”, mert van például az osztályunkban, aki összekeveri a „rectangle”-lel.

*Van valami lehetőséged iskolán kívül, hogy szavakat tanulj?*

‘Van olyan könyve anyukámnak, amiben csupa angol betűk vannak, meg a gépen is, meg a zenék is maga angol. Meg a nevek is angol a zenében és akkor ki tudom olvasni, hogy a zene címe például „angyal”, és akkor ki tudom következtetni, és akkor nagyjából tudom, hogy mit énekelnek a zenében. Meg megnézem a gépen a szótárban.

*A számítógépet is használod?*

Igen, ‘Ha érdekel, hogy mondják hogy „pingvin”, megnézem a webfordítóban és kidobja angolul. Otthon is van ilyen szótáram és abba is szoktam írni.

*És ezt a szép szótárat hogy használod?*

‘A szótárat nézegetjük. Például mondja a Gabi néni, hogy édes és akkor megkeressük, hogy édes, és akkor megnézzük, hogy ez például ige, ez meg főnév.

*Van ami nehéz neked a szótanulásban?*

‘Vannak könnyű szavak, meg nehezek... de ha anyu úgy látja, hogy valamelyiket nem tudom, akkor segít a hangzásában és úgy már könnyű.

*És van ami nehezebben megy?*

‘Amikor kiejtjük úgy nagyon furcsa, mert más mint a magyar, úgy nagyon meg kell nézni, hogy abban van-e r betű, mert nagyon nem lehet hallani azt a különbséget.

*És szeretnél új módszert tanulni, amivel még könnyebben tanulnád a szavakat?*

Igen, mert apukán hétvégéken is dolgozik, és anyukám se mindig ér rá, főz...

*Gyorsan megtanulod a szavakat?*

Hát az osztály többsége az nem olyan nagyon gyorsan, de én azért igen.

*Van még valami amit el szeretnél mondani a szótanulásról?*

Nem hiszem.

*Akkor köszönöm szépen.*

Szívesen.

### ***Year 3, female (Interview 1) – English translation***

*When did you start learning English?*

In September.

*How many lessons do you have a week?*

Three. The first lesson on Monday, and the fifth on Wednesday and Thursday.

*Do you like learning words?*

Yes. I love new things and so I’m interested {in learning words}, and I feel more like it than those who don’t {feel like it}. And, at us, in our family, everyone learns English...

*Why is it important to learn words?*

If we have learnt English and then we pass the English exam we should know it, and if we go to England then we have to know the words.

*How do you learn words?*

I get together with my mom and what we have learnt she asks from the vocabulary here and I say words in English, and she says them in Hungarian. I haven’t learnt some words and then I read aloud what they mean. Mom says if I don’t read it well, and helps how to say it.

*And who else helps you?*

My father and mum, I have a sibling but she is younger than me.

*If you see a new word, how do you learn it?*

If we learn new words with the teacher, we repeat them after her, and if she sees that the most of the class do not manage it, then we repeat them more and more. And then she writes it on the board and we copy it in our vocabulary.

*Do you learn them at home, too?*

Of course. We learn every weekend, because we write a test the following week.

*Do you feel anxious because of learning words?*

I feel very nervous when we write tests, because I have to learn everything alone, but my mom quizzes me on the words quickly in the evening.

*How do you memorize words?*

I learn English a lot, I always read them through. I learn a lot, so I always memorize words. I read, and then I always imagine them, and then I memorize them.

*Do you write them down?*

Yes, I write words a couple of times, because if, for example, we learn a rhyme then we have written that monkey means 'majom', but if we learn that 'five little monkeys', then we write it again, because there are words in the rhyme we haven't learnt, although we have learnt 'monkey', we write it down once more.

*Do you also group words?*

We have written numbers..., and once we wrote separately, for example, animals, but after that we grouped them again, because, well..., we could say what animal to learn and then we wrote them down, for example 'delfin' and then 'dolphin' and it's easy like this. We wrote the numbers and animals individually, but then we put them together. I learn from the exercise book in order, but my mom asks them randomly. Sometimes she quizzes me on all the animals, but it has happened that I learnt words randomly, and she asked them in order.

*Do you know a lot of words in English?*

Well, yes, because we write them down, and then I learn them. We have learnt a lot of words in connection with Christmas, for example, we learnt Christmas things together, e.g. 'angel' and 'Christmas tree'.

*Do you learn words easily?*

Yes, but when we learn the teacher can say, for example, that the 'triangle' must be memorized as 'háromszög', i.e. there is 'tri' in it, because there are some in our class who mistake it for rectangle.

*Do you have the opportunity to learn words out-of-school?*

My mom has got a book with English letters only, and on the computer, and the music itself is English, too. And the names are English too in the music and then I can read that the title of the music is, for example 'angel', and then I can deduce and I know it more or less what is sung in the music. And I look it up in the dictionary.

*Do you also use the computer?*

Yes. If I'm interested in how 'pingvin' is said in English, then I look it up in the web translator and it puts it out in English. I have got a vocabulary book like this at home too and I also write words in it.

*And how do you use this nice dictionary?*

We're looking up words in the dictionary. The teacher says, for example, that 'édes' and we find the word 'édes' and we find out whether it is, for example, a verb or a noun.

*Is there something difficult in learning words for you?*

There are easy and difficult words... but if my mother thinks I don't know one of them, she helps me with sounding it out and this way it becomes easy.

*And is there something which is more difficult?*

When we say it, it is very strange, because it is different from Hungarian, so it must be seen very well, whether there is an r in it, because the difference cannot be heard well.

*Would you like to learn new methods, which make learning words easier?*

Yes, because my father works at weekends and my mom is not always free either, she cooks...

*Do you learn words quickly?*

Well, most in the class don't, but I do.

*Is there anything else you would like to say about learning words?*

I don't think so.

*Thank you very much then.*

Welcome.

## **Appendix 4.2: Case study 2**

### ***Year 8, female (Interview 11) – Hungarian***

*Mióta tanulod az angol?*

Hát nem tudom, szerintem 3.-tól kezdtük.

*Hány órátok van egy héten?*

Hát most négy, de magántanárhoz is járok. A témákat tanulom már két éve. A jövő hónapban megyek nyelvvizsgázni.

*Sok szót kell megtanulni?*

Nem szót, hanem mondatot. Van egy ilyen piros könyv, és kapok mondjuk 12 kérdést, de most csak 8-at kell megtanulnom. És akkor azt leírom, meg persze magamra ítirom, és akkor így elmondom, és akkor megtanulom. Az ismeretlen szó ki van írva a hátuljába, ha meg nem akkor mondja a tanár.

*Hogy készülsz neki a szótanulásnak?*

Szólok, hogy halkítsák le a TV-t. ....vagy felmegyek, de akkor meg csönd van, és az sem jó. Azért szoktam a mamával tanulni, mert akkor kérdezek valamit, és akkor az úgy jó.

*Hogy jegyzed meg a szavakat?*

Úgy csinálom.... mondta a tanár, hogy hogy csináljam....hogy őőő... gyo.., sokszor átolvasom,... párszor, és akkor letakarom az egyiket, és akkor őőő amelyiket nem tudom azt, ... odarakok egy kicsi fekete pontot, vagy valami pontot, és akkor... és akkor... végig megyek újra, tehát átolvasom... azokat a szavakat jobban, újból elmondom 5-ször, hogy mit tudom én, „hungry, hungry, hungry, hungry, hungry”... és akkor... ő... elmondom.... el szoktam mondani a magyart, hogyha nem tudom, és akkor... és akkor ő... újra végigmegyek az egészen... és akkor csak azokat mondom el, amelyik mellett van kicsi fekete pötty, csak ezt nem mindig csinálom meg...

*Miért nem?*

Mert nincs időm. Meg kedvem sem... Régebben nem így tanultam...

*Régebben hogy tanultál?*

Csak letakartam, és akkor... csak így nem volt régebben pontocska, hanem csak úgy... Régebben csak olvastam, és olvastam aztán majd lesz valami... Ha a magyart takarom le akkor sokkal nehezebb, mert mondani sokkal könnyebb, mint megérteni...

*Ha van egy új szó, akkor, hogy tanulod meg a jelentését?*

Mindig mondja a tesóm, hogy szótárazzak, és ne netezzek. Vagy kikeresem szótárból, vagy megkérdezem valakitől. Meg ott van mellette, hogy kell kimondani.

*Szeretsz szavakat tanulni?*

Nem szeretek szavakat tanulni... mert elveszi az időt, én kint szeretek lenni most, és akkor be vagyok zárva...

*Azért úgy gondolod, hogy hatékonyan tanulsz a szavakat?*

Hát nagyon remélem. Megmaradnak azért... Most könnyebben tanulok mint két éve, mert jobban hozzá vagyok szokva. Régebben nem bírtam ennyit. Meg azért másképp is tanulok.

*Szeretnél valamit változtatni a módszereiden?*

Szeretnék megtanulni angolul. Nem merek angolul beszélni..., hogy nehogy rosszul mondjam. De azért jó lenne megtanulni.

*Iskolán kívül van lehetőséged szavakat tanulni?*

Hát nem... De megvettem a Mobi Dick-et... angolul. Majd elolvasom. Meg anyával azt szoktunk csinálni, hogy van mondjuk egy film a „Büszkeség és Balítélet”, és akkor vagy a felírat az angol és akkor magyarul mondja, vagy fordítva.

*Ha jól megtanultad a szavakat, akkor megjutalmazod magad?*

Ha megtanultam a szavakat, akkor elkezdem tanulni a szöveget.

*És akkor mi a jutalom?*

A pihenés, abból kevés van...

*További jó tanulást és sok sikert!*

Köszönöm.

### ***Year 8, female (Interview 11) – English translation***

*How long have you been learning English?*

I don't know. I think we started it in grade 3.

*How many lessons do you have a week?*

Well, we have four, but I also go to a private teacher. I have been learning the topics for two years. I'm going to pass the language exam next month.

*Do you have to learn a lot of words?*

Not words, sentences. There is a red book, and I get, let's say, 12 questions, but now I have to learn only 8. And then I write them down, and, of course, I rewrite them about myself, and then I tell them, and I learn them. The unknown words are at the end, but if not, then the teacher tells them.

*How do you prepare for learning words?*

I say to turn the TV down..., or I go upstairs, but there is silence, and it is not good either. That's why I learn with my grandma, because I ask something, and then it is good that way.

*How do you memorize the words?*

I do as... the teacher said how to do this... that well... quic..., I read it through a lot of... several times, and then I cover one, and then, well, the one I don't know..., I put a little black point next to it, or a kind of point, and then... and then I do it again, I read it through again, and those words better, and again say them 5 times, for example, 'hungry, hungry, hungry, hungry, hungry' and then... I say the Hungarian, if I don't know, then..., well, I go through on it all..., and I say only those next to which there is a little black point. I don't always do it.

*Why not?*

Because I don't have time. And I don't feel like it.... I didn't learn like this some time ago...

*How did you learn some time ago?*

I only covered it, and then... only there were no dots, just like that... Some time ago I only read it and read it and then something should happen... If I cover the Hungarian it is more difficult, because it is more difficult to say the meaning than to understand ...

*If there is a new word, how do you learn its meaning?*

My sibling always tells that I should use the dictionary, and not the internet. I either look it up in the dictionary, or ask somebody. And next to it, there is how to say.

*Do you like learning words?*

I don't like learning words... because it takes time, and I like to be outside, and then I'm closed.

*But, do you think, you learn words effectively?*

I hope so. They are retained... It's easier now than it was two years ago, because I get used to it. In the past I couldn't manage as much as now. And I also learn differently.

*Would you like to change something on the way you learn?*

I would like to learn English. I can't dare to speak English..., so as not to speak it in the wrong way. But it would be good to learn it.

*Do you have the opportunity to learn words out-of-school?*

Well, no... But I have bought the *Moby Dick*... I will learn it. And we do it with my mom, that, let's say, there is a film 'Pride and prejudice' and then either the subtitle is English and then it speaks Hungarian, or the other way round.

*If you have learnt the words well, do you reward yourself?*

After having learnt all the words, I start to learn the text.

*And what is the reward then?*

Relaxing, there is little of it...

*Have a nice learning and good luck!*

Thank you.

## **Appendix 5: Question observation and retrospective interviews**

### **Appendix 5.1: Vocabulary for learning in the classroom observation part**

Vocabulary to learn		
3-4 graders:	5-6 graders:	7-8 graders:
plant	delicious	scuba diving
flower	thirsty	sunbathing
Well done!	healthy	hiking
envelope	What would you like?	rollerblading
talk to a friend	different	collecting coins
bottle	What's the time?	playing computer games
I'm dreaming.	My favourite programme...	playing the guitar



## Appendix 5.2: Results of the classroom observation part (Phase I part 2)

Figure 1: Learner's test written after the classroom observation part – using lines

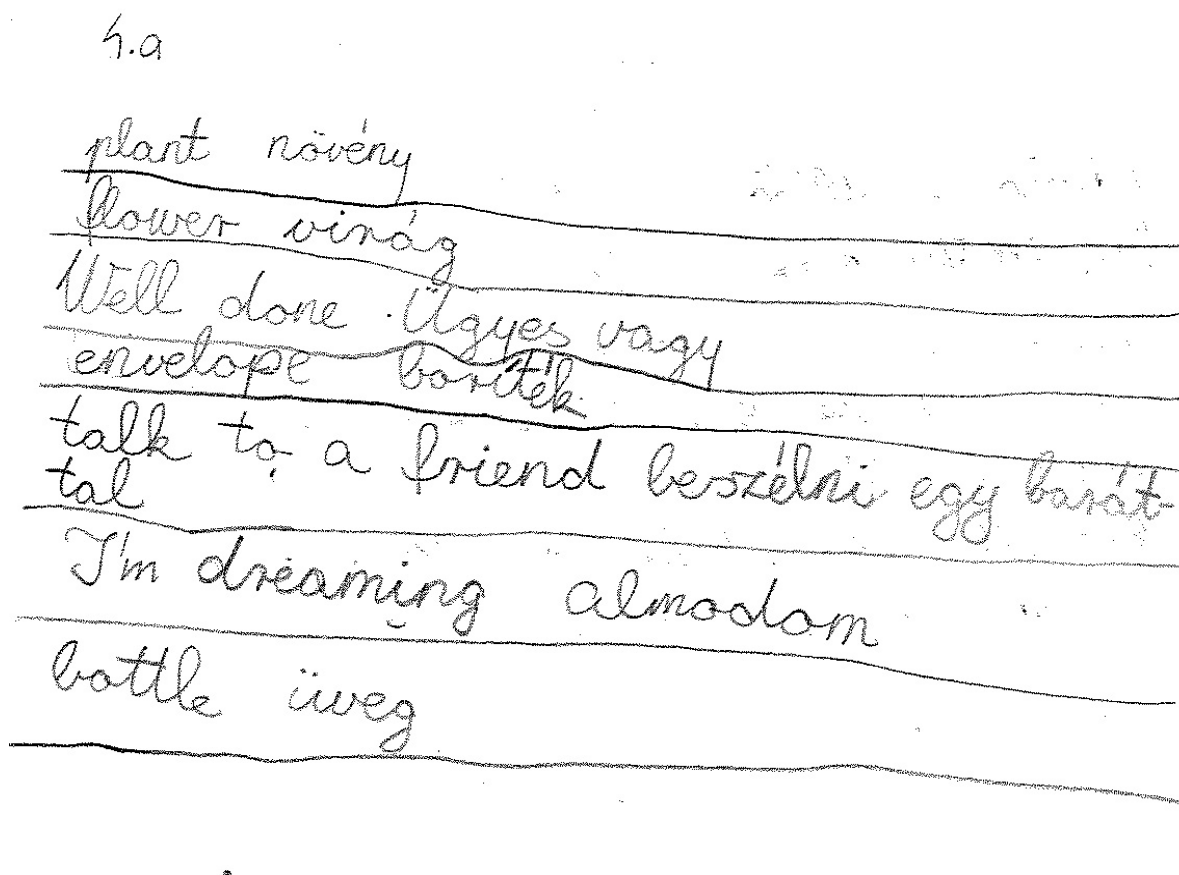
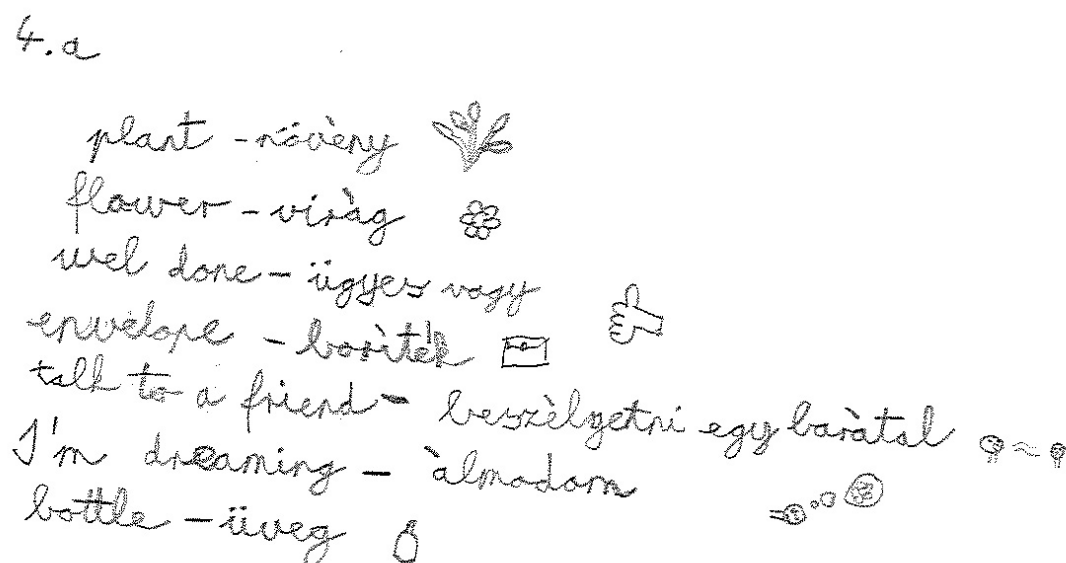


Figure 2: Learner's test written after the classroom observation part – using drawings



### Appendix 5.3: Excerpts of the retrospective interviews (Phase I part 2)

- (1) 'Egymás után {tanultam meg a szavakat}.  
[I learnt the words} one after the other.] '
- (2) 'Sorban.  
[In order.]'
- (3) 'Én olvasgattam a szavakat.  
[I was reading the words.]'
- (4) 'Többször is elolvastam.  
[I read them several times.]'
- (5) 'Nézegettem a szavakat.  
[I was looking at the words.]'
- (6) 'Bemagoltam, megtanultam őket, amíg olvasgattam.  
[I was parroting the words; I learnt them while I was reading them.]'
- (7) 'Én azt csináltam, hogy az egyik szót háromszor, négyszer, ötször elmondtam, aztán elmondtam az egyik felét {az angolt}, aztán elmondtam angolul is meg magyarul is.  
[What I did was that I read one of the words three times, four times, five times, and then I told only one half of it {the English}, then I told it in English and in Hungarian, as well.]'
- (8) 'Én sorban tanultam meg őket, először az angolt mondogattam halkan és elképzeltem, hogy hogy van leírva mert úgy könnyebb megjegyezni hogy mit jelent, meg hogy hogy kell írni.  
[I memorized them one after the other, I learnt the English first, I was saying them quietly, and I imagined them in the form they are written because it is easier to fix the meaning and the written form this way.]'
- (9) 'Folyamatosan ismételtetem a fejemben és le is betűztem a fejemben.  
[I was reiterating them continuously in my mind and I also spelled them in my mind.]'
- (10) 'Úgy kimondtam a fejemben, ahogy le kell írni.  
[I told it in my mind how it has to be written.]'
- (11) 'Én úgy mondtam el, ahogy le kell írni.  
[I told then how they have to be written.]'
- (12) 'Háromszor elolvastam angolul is meg magyarul is, utána letakartam az egyik felét, utána a másikat, utána meg össze-vissza.'  
[I have read them three times in English and also in Hungarian, and then I covered one half of it, and then the other half, and then mixed up.]'
- (13) 'Testvérem is angolra jár és ő azt mondta, hogy ő is mindig úgy tanulja meg {a szavakat}, hogy letakarja az angolt és akkor úgy...

[My sister also learns English and she has said she always learns {the words} that covers the English and then so...]

- (14) 'Én mondatba raktam, pl., hogy „I'm thirsty” – „Én szomjas vagyok”, és akkor, úgy jobban tudom, hogy mi az a szó.  
[I put them in a sentence that for example 'I'm thirsty' – 'Én szomjas vagyok', and then I know better what the word is.]'
- (15) 'Mindegyiket folyamatosan tanultam, meg mellé csináltam rajzot is, mert úgy jobban fölismeri az ember...  
[I learnt all one after the other and I also drew pictures next to the words, because it is easier to recognize...]
- (16) 'Néha, hogyha nézek egy filmet vagy egy mesét, abból is ki tudom következtetni, hogy mit jelent, mert sokszor használnak olyat amit az órán.  
[Sometimes, when I watch an English film or cartoon, I can infer the meaning, because they often use such {words} like in the lesson.]'
- (17) 'Én is nézek feliratos mesét.  
[I also watch cartoons with subtitles.]'
- (18) 'Először én a kiejtést tanultam meg, azután mondogattam magamnak és megtanultam, hogy mit jelent, meg hogy hogy kell leírni.  
[First I learnt the pronunciation and then I was saying it to myself, and I learnt the meaning and how it has to be written down.]
- (19) 'Én először lebetűztem, hogy milyen betűkből áll, aztán elmondtam a kiejtését, majd a jelentését.  
[First I spelled it, what letters it consists of, and then I told its pronunciation, and then its meaning.]'
- (20) '{Megtanultam} hogy kell leírni.  
[I learnt] how to write it.]'
- (21) 'Kiejtését is, meg hogy mit jelent.  
[Also its pronunciation and what it means.]'
- (22) '{Nehéz volt} megjegyezni az összeset és leírni.  
[It was difficult] to memorize and write all.]'
- (23) 'A kiejtést kicsit nehéz volt megtanulni, főleg ahol sok a mássalhangzó.  
[Pronunciation was a bit difficult to learn, especially when there are a lot of consonants.]'
- (24) 'A szomjas kiejtése volt nehéz.  
[The spelling of thirsty was difficult.]'
- (25) 'A szomjast azt úgy tanultam meg, hogy a „thirty” az egy szám és csak odaírom az s-t.  
[I learn 'thirsty' that thirty is a number and I only write an 's' there.]'

- (27) ‘A th-t meg az ipszilont úgy {tanulom meg} hogy először azt jegyzem meg, aztán az elejét is tudni fogom, a magyar meg majd úgyis eszembe jut.  
[‘I learn} th and y, I first memorize these, and then I’ll know the first part, and I will remember the Hungarian meaning.]’
- (26) ‘A „delicious”-t úgy mondjuk, hogy „delicious” {dɪlɪʃəs}, de a cious-t azt így kell leírni, és az megzavar, meg a té-há-t, meg az ipszilon-t is nehéz megjegyezni.  
[We say ‘delicious’ as ‘delicious’ but we have to write cious and I’m confused of it, and the th, and also the y are difficult to memorize.]’
- (28) ‘Én elképzeltem a búvárkodást, túrázást és a görkorizást is.  
[I visualized scuba diving, hiking and rollerblading, too.]’
- (29) ‘Elképzeltem, hogy beszélget az egyik mondjuk Danival.  
[I visualized that one of them is talking, let’s say, to Dani.]’
- (30) ‘Igazából az összeset próbáltam elképzelni, hogy például „my favourite programme is dancing”. Mondatba helyeztem, amit meg nem tudtam, azt úgy, hogy többször átolvastam.  
[I tried to visualize all, for example that ‘my favourite programme is dancing’. I put it in a sentence, and what I couldn’t I read several times.]’
- (31) ‘Hogy boríték, és akkor elképzeltem egy borítékot...  
[That envelope, and then I visualized an envelope...]
- (32) ‘Én a rajzok segítségével {képztem el}.  
[‘I visualized them} with the help of the drawings.]’

## Appendix 6: Questionnaires for the structured interviews (developed in Phase I)

### Appendix 6.1: Questionnaire for the structured interviews (Hungarian)

1. Szerinted miért fontos az angol szavak tanulása?
2. Neked mi a nehéz a szótanulásban?
3. Ha izgulsz, hogy nem tudod-e megtanulni a szavakat, hogyan küzdöd le az izgalmadat?
4. Ha nincs kedved szavakat tanulni, hogyan hangolódsz mégis rá?
5. Ha elkalandozik a figyelmed, hogyan fordítod vissza a szótanulásra?
6. Ha unod a szótanulást, hogyan küzdöd le az unalmadat?
7. Ha stresszesnek érzed a szótanulást (pl. szódolgozat miatt), hogyan küzdöd le a stresszt?
8. Hogyan készülsz elő, azaz hogy állsz neki a szótanulásnak?
9. Honnan tudod, hogy hány angol szót tanultál már eddig?
10. Mennyire tudod magad angolul kifejezni, megértetni?
11. Az iskolai és otthoni gyakorláson kívül milyen lehetőség van a szótanulásra?
12. Hogyan szeretnéd gyarapítani a szókincsed?
13. Szerinted mikor tudsz egy szót?
14. Hogyan vésed az eszedbe a szavakat?
15. Kivel szoktál szavakat tanulni, gyakorolni?
16. Hogyan tudod kikövetkeztetni új szavak jelentését?
17. Hogyan tudod elképzelni egy szó jelentését?
18. Ha megtanultad a szavakat, hogyan jutalmazod meg magad?
19. Hogyan tehetnéd hatékonyabbá a szótanulásodat?
20. Mit változtatnál a szótanulási módszereiden?

1 Nemed:      fiú                      lány

2 Osztály:    3.       4.       5.       6.       7.       8.

3 Hány angol tanórád van egy héten az iskolában?

1      2      3      4      5      több

4 Hány éve tanulsz angolul? 1      2      3      4      5      6      7      8      több

5 Előző félévi jegyed angolból:    1      2      3      4      5

6 Az angolon kívül tanulsz másik idegen nyelvet is?    nem              igen

7 Szereted az angolt?                      nem              is-is              igen

(Explanations in brackets refer to the main categories and items of young learners' SRV learning outlined in the literature review. These are not part of the questionnaire administered among participants.)

- [illegible]

## **Appendix 7: Results of the structured interviews (Phase II part 1)**

### **Appendix 7.1: Results of the structured interviews (Hungarian)**

1. Szerinted miért fontos az angol szavak tanulása?

Mert világnyelv és tudjunk angolul beszélni.

Ha külföldre megyek hasznos lesz, mert meg tudom értetni magam.

Mert elmehetünk más országokba és értjük az emberek beszédét.

Lehet, hogy olyan munkát fogok választani, amihez kell az angol.

2. Neked mi a nehéz a szótanulásban?

Semmi.

Meg kell tanulni a szó jelentését.

Néhány szót nehéz kiejteni.

Nehéz helyesen leírni a szavakat.

Vannak nehezebb szavak, amelyekben kettő vagy három magánhangzó, vagy mássalhangzó is van.

3. Ha izgulsz, hogy nem tudod megtanulni a szavakat, hogyan küzdöd le az izgalmat?

Nem szoktam izgulni.

Addig olvasom a szavakat, amíg nem felejttem el őket.

Valami mást csinálok, például játszok, majd újból előveszem.

Csokit eszek.

Beszélek anyával, és ő segít.

Arra gondolok, hogy biztos sikerülni fog, és még rosszabb lesz, ha izgulok.

4. Ha nincs kedved szavakat tanulni, hogyan hangolódsz mégis rá?

Mindig van kedvem tanulni.

Leülök és előveszem a könyvet vagy füzetet, az segít.

Angol zenét hallgatok előtte.

Mást tanulok helyette, utána visszatérek rá.

Mást csinálok először, játszok a kutyával és utána...

5. Ha elkalandozik a figyelmed, hogyan fordítod vissza a szótanulásra?

Nem szokott elkalandozni a figyelmem.

Rám szól a tanár vagy anya.

Elteszek mindent az asztalomról, csak angolt hagyok ott, a szótárt például.

Jobban koncentrálok.

Csinálok valami mást, majd visszatérek hozzá.

6. Ha unod a szótanulást, hogyan küzdöd le az unalmadat?

Egy kis időre abbahagyom, majd visszatérek hozzá.

Játszom, vagy eszek, iszok valamit, beszélgetek valakivel. Csinálok valami mást.

Még gyorsabban szeretnék vele végezni. Felturbózom.

7. Ha stresszesnek érzed a szótanulást (pl. szódolgozat miatt), hogyan küzdöd le a stresszt?

Sosem vagyok stresszes.

Megtanulom a szavakat.

Az mondom magamnak, hogy jól fog sikerülni.

Az önbizalmammal.  
Nem gondolok arra.  
Anyukám mindig segít nekem, hogy hogy ejtsem ki a szavakat.

8. Hogyan készülsz elő, azaz hogy állsz neki a szótanulásnak?

Bemegyek a szobámba és átnézem mit kell megtanulni.  
Előveszem a szótárat.  
Eldöntöm a fejemben, hogy erre szükségem lehet.  
Viszek vizet magammal.  
Leülök és előveszem a könyvet.  
Lehalkítom a rádiót.  
Kikapcsolom a TV-t.

9. Honnan tudod, hogy hány angol szót tanultál már eddig?

Megkérek valakit, hogy kérdezzen ki.  
Megszámolom a szótárban.  
A mondatok használatából. Minél több szót tudok, annál több mondatot tudok csinálni.  
Mindig átolvasom a szótáramat, és átismétlem a szavakat.

10. Mennyire tudod magad angolul kifejezni, megértetni?

Nagyon jól.  
Szerintem elég jól.  
Többé-kevésbé.  
Még sok szót kellene tanulnom.

11. Az iskolai és otthoni gyakorláson kívül milyen lehetőség van a szótanulásra?

Az interneten, különböző oldalakon.  
Számítógépes játék közben.  
Zenét hallgatok.  
DVD-t nézek.

12. Hogyan szeretnéd gyarapítani a szókincsed?

Szótárral.  
Angol könyvet olvasok.  
Még többet tanulok.  
Többet szeretnék angolul beszélni.  
Kimegyek más országba és ott tanulom.

13. Szerinted mikor tudsz egy szót?

Ha mindig eszembe jut.  
Amikor a tanár kérdezi és tudom.  
Amikor már mondatban is tudom használni.  
Ha le tudom írni és ki tudom ejteni.  
Amikor tudom a jelentését, a kiejtését és a helyesírását.  
Ha úgy el tudom mondani, mint egy magyar szót.

14. Hogyan vésed az eszedbe a szavakat?

Sokszor elolvasom.  
Sokszor elmondom magamnak.  
Ismétléssel.



Odafigyelek az órán és megjegyzem.  
Elsőször leírom, utána megtanulom.  
Átolvasom, utána felmondom magamnak.

15. Kivel szoktál szavakat tanulni, gyakorolni?  
A tantárral /a tanító nénivel.  
Családtaggal.  
Egyedül.

16. Hogyan tudod kitalálni új szavak jelentését?  
A szövegkörnyezetből.  
A mondat körülményeiből.  
Vagy tippelek, vagy szótárazással.  
Ha látok hozzá képet, úgy a kép alapján.

17. Hogyan tudod elképzelni egy szó jelentését?  
Nem szoktam elképzelni.  
Lerajzolom.  
Mellé képezek egy képet.  
Gondolok valamire, pl. a ... az „aeroplane”-re, meg a színekre és akkor gondolok egy színre,  
és akkor összeszemelem az „eroplane”-nel, és akkor piros repülő és akkor elképzelem.  
Hát, valami vicces dolog az eszembe jut, pl. a body-ról a budi.

18. Ha megtanultad a szavakat, hogyan jutalmazod meg magad?  
Csokit eszek.  
Örülök.  
Egy 5-ös dolgozattal.  
Sokáig tévézhetek.  
Számítógépezéssel.  
Zenét hallgatok.  
Anyutól kikönyörgök egy lovaglást.  
Megsimogatom a fejem.

19. Hogyan tehetnéd hatékonyabbá a szótanulásodat?  
Így jó, ahogy van.  
Könyvolvasással, angol szövegek hallgatásával.  
Több tanulással.  
Ismétléssel.

20. Mit változtatnál a szótanulási módszereiden?  
Semmit, így jó.  
Nagyobb figyelmet kéne rá szánnom.  
Több szót tanulnék meg.  
Folyamatosan tanulnék, többször, de kevesebbet.

## **Appendix 7.2: Result of the structured interviews (English translation)**

1 Why do you think it is important to learn English words? (initial appraisal: attitude)

Because it is a world language and we will be able to speak English.

If I go abroad, it will be useful to make myself understood.

We can go to other countries and understand what people say.

I can choose a job that needs English.

2 What is difficult for you in learning words? (initial appraisal: self-efficacy, difficulties)

Nothing.

To learn the meaning of a word.

The pronunciation of some words is difficult.

It is difficult to write the words correctly.

There are more difficult words, for example, with two or three vowels or consonants.

3 If you feel anxious about whether you can learn words, how do you lower your anxiety? (initial appraisal: lowering anxiety)

I don't feel anxious.

I read the words till I do not forget them.

I do something else, for example I play, and then I turn back to it.

I eat some chocolate.

I speak with my mom and she helps.

I believe I will succeed, and it will be even worth if I'm anxious.

4 If you do not feel like learning words, how do you persuade yourself to prepare for it? (self-regulating capacity: commitment control)

I always feel like learning.

I sit down and I get out a book or exercise books, and it helps.

I listen to English music first.

I learn something else instead, and later I get back to it.

First I do something else, I play with my dog, and after that...

5 When you cannot concentrate on learning words, how do you turn your attention back? (self-regulating capacity: metacognitive control)

I always concentrate.

The teacher or my mom calls me upon.

I put everything away from my desk, I only leave English there, for instance a dictionary.

I concentrate better.

I do something else and then I return to it.

6 If you are bored with learning words, how do you override the boredom? (self-regulating capacity: satiation control)

I stop learning it for a while and then I turn back to it.

I play or eat or drink something or speak to someone. I do something else.

I try to learn it faster in order to finish it sooner. I speed it up.

7 If you feel stressed about learning words (e.g. word test), how do you get over stress? (self-regulating capacity: emotion control)

I never feel stressed.

I do learn the words.  
I tell it to myself that it will turn out well.  
With my self-confidence.  
I don't think about it.  
My mom helps how to pronounce words.

8 How do you prepare or get ready for learning words? (self-regulating capacity: environmental control)

I go into my room and look over what I have to learn.  
I take out the dictionary.  
I decide it in my mind that I may need it.  
I take some water with me.  
I sit down and get the book out.  
I turn down the radio.  
I switch off the TV.

9 How do you know how many English words you have learnt? (metacognition: monitoring)

I ask somebody to quiz me.  
I count them in the dictionary.  
I know it from the use of sentences. The more words I know, the more sentences I can make.  
I always read my dictionary and review the words.

10 How much can you express yourself or make yourself understood in English? (metacognition: self-monitoring, evaluation)

Very well.  
I think, quite well.  
More or less.  
I should learn a lot of words.

11 Besides practising words at school and at home, what opportunities do you have to learn words? (metacognition: seeking practice opportunities)

On the internet, at different pages.  
While I am playing computer games.  
I listen to music.  
I watch DVD.

12 How would you like to increase your vocabulary? (metacognition: planning)

I'll learn from a dictionary.  
I'll read a book in English.  
I'll learn more.  
I'd like to speak English more.  
I go to another country and I'll learn it there.

13 When do you think you know a word? (metacognition: aspects of strategy use)

If I always remember it.  
When the teacher asks it and I know.  
When I can use it in a sentence.  
When I can write it down and I can pronounce it.  
When I know its meaning, pronunciation and its orthography.  
If I can tell it like a Hungarian word.

14 How do you memorize words? (vocabulary learning strategy: memory strategy)

I read it several times.

I say it several times to myself.

I repeat it.

I listen at the lesson and I memorize it.

First I write it down and then I learn it.

I read it and then I quiz myself.

15 Who do you learn or practice words with? (vocabulary learning strategy: social strategy)

With the teacher.

With a member of a family.

Alone.

16 How can you guess the meaning of new words?

(vocabulary learning strategy: cognitive strategy – lexical processing strategy)

From the context.

From the context of the sentence.

I make a guess or I look it up in the dictionary.

When I see a picture next to it, then based on the picture.

17 How can you imagine the meaning of a word?

(vocabulary learning strategy: cognitive strategy: mental pegs, imaging strategy)

I don't imagine it.

I draw it.

I imagine a picture to it.

I think about something, for example an aeroplane and colours, and then I think about a colour and match it with the aeroplane, and then it becomes a red aeroplane, and then I imagine it.

Well, I recall something funny, for example 'body' and 'budi'.

18 Having learnt the words, how do you reward yourself?

(post-appraisal of vocabulary learning: self-rewarding)

I eat some chocolate.

I feel happy.

With a 5 on a test.

I'm allowed to watch TV for a long time.

I listen to music.

I beg my mom for a horse-riding.

I stroke my head.

19 How can you make learning words more effective?

(post-appraisal of vocabulary learning: efficacy)

It is good as it is.

By reading a book or listening to English texts.

By learning more.

20 What would you change in your method of learning words?

(post-appraisal of vocabulary learning: satisfaction)

Nothing, it is good like this.

I would pay more attention to it.

I would learn more words.

I would learn continuously, more times but fewer words.

## Appendix 8: Quantitative questionnaire – Pilot version (developed in Phase II part 2)

### Appendix 8.1: Quantitative questionnaire – Pilot version (Hungarian)

#### Kérdőív az angol szókincstanulási stratégiákról

Karikázd be a rád vonatkozó válasz számát! (Mindenhol csak egyet!)

- 1 Nemed: 1. Fiú 2. Lány
- 2 Osztály: 3. 4. 5. 6. 7. 8.
- 3 Hány angolórát van egy héten az iskolában? 1 2 3 4 5 több
- 4 Hány éve tanulsz angolul: 1 2 3 4 5 6 7 8 több
- 5 Előző félévi jegyed angolból: 1 2 3 4 5
- 6 Az angolon kívül tanulsz másik idegen nyelvet is, ha igen, akkor írd a kipontozott részre melyiket?  
1. nem 2. igen .....
- 7 Szereted az angolt? 1. nagyon nem 2. nem 3. is-is 4. szeretem 5. nagyon szeretem

Az alábbiakban arról kérdezlek, hogyan tanulsz az angol szavakat.

Kérlek karikázd be azt a számot, amelyről azt gondold, hogy leginkább illik rád. Mindenhol csak egy számot jelölj meg! Nincsenek jó vagy rossz válaszok, és minden válasz egyaránt fontos. A számok jelentése a következő:

**1 nagyon nem értek egyet 2 nem értek egyet 3 egyetértek 4 teljesen egyetértek**

- |   |   |   |   |   |
|---|---|---|---|---|
| 1. Fontos a szavakat tanulni, mert az angol világnyelv és sok mindenhez kell.     | 1 | 2 | 3 | 4 |
| 2. Fontos a szótanulás, hogy ha külföldre megyek meg tudjam magam értetni.        | 1 | 2 | 3 | 4 |
| 3. Szerintem nem fontos az angol szavakat tanulni.                                | 1 | 2 | 3 | 4 |
| 4. A szókincsem angol nyelvű könyvek olvasásával szeretném bővíteni.              | 1 | 2 | 3 | 4 |
| 5. Szívesen beszélnék többet angolul, hogy bővüljön a szókincsem.                 | 1 | 2 | 3 | 4 |
| 6. Iskolán kívül, az interneten, különböző oldalakon tanulok angol szavakat.      | 1 | 2 | 3 | 4 |
| 7. Számítógépes játékokat játszom, hogy gyarapodjon a szókincsem.                 | 1 | 2 | 3 | 4 |
| 8. Angol nyelvű filmek nézésével bővíttem a szókincsem.                           | 1 | 2 | 3 | 4 |
| 9. Angol nyelvű zene hallgatásával sok új szót tanulok, ezzel bővül a szókincsem. | 1 | 2 | 3 | 4 |
| 10. Ki tudom magam fejezni angol nyelven.   | 1 | 2 | 3 | 4 |
| 11. Meg tudom magam értetni angolul.  | 1 | 2 | 3 | 4 |
| 12. Sok szót kell még tanulnom, hogy boldoguljak angolul.                         | 1 | 2 | 3 | 4 |
| 13. Gyakran átolvasom és átismétlem a szavakat.                                   | 1 | 2 | 3 | 4 |
| 14. Egyre több mondatot tudok alkotni, mert egyre több szót tudok.                | 1 | 2 | 3 | 4 |
| 15. Akkor tudok egy szót, ha mindig eszembe jut, amikor használnom kell.          | 1 | 2 | 3 | 4 |
| 16. Akkor tudok egy szót, ha mondatban is tudom használni.                        | 1 | 2 | 3 | 4 |
| 17. Akkor tudok egy szót, ha tudom, hogy kell helyesen kiejteni.                  | 1 | 2 | 3 | 4 |
| 18. Akkor tudok egy szót, ha tudom, hogy kell helyesen leírni.                    | 1 | 2 | 3 | 4 |
| 19. Akkor tudok egy szót, ha tudom mit jelent.                                    | 1 | 2 | 3 | 4 |

20. A szavakat úgy jegyzem meg, hogy sokszor átolvasom őket.	1	2	3	4
21. A szavakat úgy jegyzem meg, hogy sokszor leírom őket.	1	2	3	4
22. A szavakat úgy jegyzem meg, hogy sokszor elmondom őket magamnak.	1	2	3	4
23. Az új szavak csak úgy megragadnak.	1	2	3	4
24. Egy új szót úgy jegyzek meg, hogy kötöm valamihez a jelentését.	1	2	3	4
25. Az új szavak tanulásában segít valaki (pl. családtag, rokon, barát, stb.).	1	2	3	4
26. Az új szavak jelentését ki tudom találni a szöveggörnyezetből.	1	2	3	4
27. Az új szavak jelentését ki tudom találni, ha látok hozzá képet.	1	2	3	4
28. Ha egy új szó jelentését nem tudom kitalálni, kiszótározom.	1	2	3	4
29. Ha elképzelem a szó jelentését, akkor könnyebb megjegyezni.	1	2	3	4
30. Könnyű megtanulni az új szavak jelentését.	1	2	3	4
31. Könnyű megtanulni helyesen írni a szavakat.	1	2	3	4
32. Könnyű megtanulni a szavak kiejtését.	1	2	3	4
33. Ha izgulok, hogy nem tudom megtanulni a szavakat, arra gondolok, hogy biztos minden rendben lesz.	1	2	3	4
34. Ha izgulok, hogy nem tudom megtanulni a szavakat, valami más csinállok, majd újból előveszem.	1	2	3	4
35. Ha izgulok, hogy nem tudom megtanulni a szavakat, addig tanulom őket, amíg megmaradnak.	1	2	3	4
36. Nem szoktam izgulni a szótanulás miatt.	1	2	3	4
37. Amikor elkezdem a szótanulást bemegyek a szobámba és előveszem a füzetet, könyvet, vagy a szótárfüzetet.	1	2	3	4
38. Ha elkezdek tanulni, nyugalmat teremtek magam körül.	1	2	3	4
39. Ha elkalandozik a figyelmem szótanulás közben, próbálok még jobban koncentrálni.	1	2	3	4
40. Ha elkalandozik a figyelmem szótanulás közben, csinállok valami más, majd visszatérek hozzá.	1	2	3	4
41. Ha elkalandozik a figyelmem szótanulás közben, mindent elteszek, csak az angolt hagyom elől.	1	2	3	4
42. Ha unom a szótanulást, egy kis időre abbahagyom, majd folytatom.	1	2	3	4
43. Ha unom a szótanulást, csinállok valami más (pl. eszem, iszom, játszom, TV-zek, stb.).	1	2	3	4
44. Ha unom a szótanulást, gyorsabban kezdek tanulni, hogy hamarabb végezzek.	1	2	3	4
45. Ha stresszesnek érzem a szótanulást (pl. szódolgozat, felelés miatt, stb.), azt mondom magamnak, hogy jól fog sikerülni.	1	2	3	4
46. Ha stresszesnek érzem a szótanulást, nem gondolok a stresszre.	1	2	3	4
47. Ha stresszesnek érzem a szótanulást, még többet tanulok, hogy jobban tudjam.	1	2	3	4
48. Nem szoktam stresszes lenni a szótanulás miatt.	1	2	3	4
49. Ha megtanultam a szavakat megjutalmazom magam (pl. eszem valami finomat, stb.).	1	2	3	4

50. Ha megtanultam a szavakat csinállok valamit, amit szeretek (pl. számítógépezek, tévézek, stb.)	1	2	3	4
51. Hatékonyan és eredményesen tanulom a szavakat.	1	2	3	4
52. A szótanulásomat hatékonyabbá szeretném tenni több tanulással, ismétléssel, odafigyeléssel.	1	2	3	4
53. A szótanulásomat hatékonyabbá szeretném tenni angol szövegek olvasásával, hallgatásával.	1	2	3	4
54. A szótanulási módszereimmel elégedett vagyok, jó így, ahogy van.	1	2	3	4
55. Szeretnék új módszereket tanulni a szótanulásra.	1	2	3	4



## Appendix 8.2: Quantitative questionnaire – Pilot version (English – translated)

### Questionnaire about learning English vocabulary (pilot version)

Circle the number of the answer that is true for you: (Only one answer at each question!)

- 1 Your sex: 1. Male 2. Female  
 2 Class: 3 4 5 6 7 8  
 3 How many English lessons do you have at school a week? 1 2 3 4 5 more  
 4 How many years have you been learning English for? 1 2 3 4 5 6 7 8 more  
 5 Your last term English grade: 1 2 3 4 5  
 6 Are you learning another language besides English? If yes, state which one.  
     1. no 2. yes (.....)  
 7 Do you like English? 1. I hate it 2. I don't like it 3. so-so 4. I like it 5. I like it very much

This questionnaire asks you about how you learn English words.

Please circle the number which you think is true for your vocabulary learning in English. Circle one number only at each question! There are no right or wrong answers, and your answers are equally important. The numbers mean the following:

1 strongly disagree	2 disagree	3 agree	4 strongly agree
1. It is important to learn words because English is a world language and it is needed to a lot of things.	1	2	3 4
2. Learning words is important so that I can make myself understood if I travel abroad.	1	2	3 4
3. I don't think learning words is important.	1	2	3 4
4. I would like to improve my vocabulary by reading books in English.	1	2	3 4
5. I would like to speak English more so that my vocabulary can improve.	1	2	3 4
6. Besides school, I learn words at different pages of the internet.	1	2	3 4
7. I play computer games in order to improve my vocabulary.	1	2	3 4
8. I improve my vocabulary by watching films in English.	1	2	3 4
9. When I listen to English music I learn a lot of new words and my vocabulary improves.	1	2	3 4
10. I can express myself in English.	1	2	3 4
11. I can make myself understood in English.	1	2	3 4
12. I have to learn a lot of words to succeed in English.	1	2	3 4
13. I often read through and review the English words.	1	2	3 4
14. I am able to form more and more sentences, because I know more and more words.	1	2	3 4
15. I know a word if I can always recall it when I have to use it.	1	2	3 4
16. I know a word if I can use it in a sentence.	1	2	3 4
17. I know a word if I can say it correctly.	1	2	3 4
18. I know a word if I can write it correctly.	1	2	3 4
19. I know a word if I know its meaning.	1	2	3 4

20. I memorize words by reading them a lot of times.	1	2	3	4
21. I memorize words by writing them a lot of times.	1	2	3	4
22. I memorize words by saying them to myself a lot of times.	1	2	3	4
23. I just pick up the new words.	1	2	3	4
24. I learn a new word by connecting its meaning to something.	1	2	3	4
25. Someone helps me in learning new words. (e.g. family member, relative, friend, etc.).	1	2	3	4
26. I can guess the meaning of new words from context.	1	2	3	4
27. I can guess the meaning of new words if I can see a picture to them.	1	2	3	4
28. If I can't guess the meaning of a new word, I look it up in the dictionary.	1	2	3	4
29. If I imagine the meaning of a word it is easier to memorize it.	1	2	3	4
30. It is easy to learn the meaning of new words.	1	2	3	4
31. It is easy to learn how to write words correctly.	1	2	3	4
32. It is easy to learn how to say words correctly.	1	2	3	4
33. If I feel anxious that I can't learn words, I say to myself that everything will be all right.	1	2	3	4
34. If I feel anxious that I can't learn words, I do something else and later I return to it.	1	2	3	4
35. If I feel anxious that I can't learn words, I learn them till I remember them.	1	2	3	4
36. I don't feel anxious about learning words.	1	2	3	4
37. When I start learning words I go into my room and take out my book, exercise book or vocabulary book.	1	2	3	4
38. When I start learning I make peace around me.	1	2	3	4
39. If I can't pay attention to learning words, I try to concentrate better.	1	2	3	4
40. If I can't pay attention to learning words, I do something else and later I return to it.	1	2	3	4
41. If I can't pay attention to learning words, I put away everything, I leave out only English.	1	2	3	4
42. If I am bored with learning words, I stop it for a while and then I continue.	1	2	3	4
43. If I am bored with learning words, I do something else instead (e.g. eat or drink, play, watch TV, etc.).	1	2	3	4
44. If I am bored with learning words, I try to learn faster to finish sooner.	1	2	3	4
45. If I feel stressed about learning words (e.g. because of written or oral test, etc.) I say it to myself that it will succeed.	1	2	3	4
46. If I feel stressed about learning words I try not to think about stress.	1	2	3	4
47. If I feel stressed about learning words I learn more in order to know them better.	1	2	3	4
48. I do not feel stressed about learning words.	1	2	3	4
49. After I have learned the words I reward myself (e.g. I eat something delicious, etc.).	1	2	3	4

50. After I have learned the words I do something I like (e.g. play computer games, watch TV, etc.).	1	2	3	4
51. I learn words efficiently and I have good results.	1	2	3	4
52. I would like to improve my vocabulary by learning, revising and listening more.	1	2	3	4
53. I would like to improve my vocabulary by reading or listening to English texts.	1	2	3	4
54. I use the right strategies for learning words; everything is good as it is.	1	2	3	4
55. I would like to learn new strategies for learning words.	1	2	3	4

## Appendix 9:

### Appendix 9.1: The arrangements of the categories and items in the quantitative questionnaires

Question number		Category	Sub-category	Item
Pilot questionnaire	Final questionnaire			
1, 2, 3	1, 5, 10	Motivation	Instrumental motivation	
4, 5, 6, 7, 8, 9	2, 4, 6, 15, 23, 43	Metacognition	Seeking practice opportunities	Out-of-school opportunities
10, 11, 12	3, 7, 55	Metacognition	Evaluation	Self-evaluation
13, 14	28, 50	Metacognition	Monitoring	Self-monitoring
15, 16, 17, 18, 19	8, 11, 20, 24, 27	Metacognition	Monitoring	Finding out about language learning
20, 21, 22	9, 13, 34	VLS	Cognitive strategies	Repetition
25	12, <b>35*</b>	VLS	Social strategies	Asking for help
23	39	VLS	Memory strategies	Picking up words
26, 27, 28	17, 52, 53	VLS	Memory strategies	LPS
24, 29	36, 41, <b>48*</b>	VLS	Memory strategies	Mental pegs
30, 31, 32	14, 44, 46	Self-motivation	IAVLE	Difficulties
33, 34, 35, 36	16, 22, 32, 40	Self-motivation	Self-efficacy	
37, 38	19, 33	SRC	IAVLE	Eliminating anxiety
39, 40, 41	18, 30, 47	SRC	Anxiety	
42, 43, 44	21, 37, 54	SRC	Environment control	Controlling the environment
45, 46, 47, 48	25, 29, 42, 51	SRC	Commitment control	Controlling attention
49, 50	26, 56	SRC	Satiation control	Controlling boredom
51	31	SRC	Emotion control	Controlling stress
52, 53, 54, 55	38, 45, 49, 57	Self-motivation	PAVLT	Rewarding
		Self-motivation	PAVLT	Skilfulness
		Self-motivation	PAVLT	Satisfaction

\* Items in bold are added to the final questionnaire

### Appendix 9.2: Item numbers in the quantitative questionnaires

Qs	Item numbers																			
Pilot	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Final	1	5	10	4	2	15	43	23	6	3	7	55	28	50	24	8	11	20	27	9
Pilot	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Final	13	34	39	41	12	17	52	53	36	44	14	46	22	40	32	16	19	33	30	47
Pilot	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	-	-			
Final	18	54	21	37	51	29	25	42	56	26	31	38	45	49	57	35	48			

### **Appendix 9.3: The questions of the final questionnaire grouped by the categories**

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#### **Motivation**

- 1. It is important to learn words because English is a world language and it is needed to a lot of things.
- 5. Learning words is important so that I can make myself understood if I travel abroad.
- 10. I don't think learning words is important.

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#### **Metacognition Seeking practice opportunities – Out-of-school opportunities**

- 2. I would like to speak English more so that my vocabulary can improve.
- 4. I would like to improve my vocabulary by reading books in English.
- 6. When I listen to English music I learn a lot of new words and my vocabulary improves.
- 15. Besides school, I learn words at different pages of the internet.
- 23. I improve my vocabulary by watching films in English.
- 43. I play computer games in order to improve my vocabulary.

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#### **Metacognition Evaluation – Self-evaluation**

- 3. I can express myself in English.
- 7. I can make myself understood in English.
- 55. I have to learn a lot of words to succeed in English.

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#### **Metacognition Monitoring – Self-monitoring**

- 28. I often review the English words in order not to forget them.
- 50. I am able to form more and more sentences, because I know more and more words.

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#### **Metacognition Monitoring – Finding out about language learning**

- 8. I know a word if I can use it in a sentence.
- 11. I know a word if I can say it correctly.
- 20. I know a word if I can write it correctly.
- 24. I know a word if I can always recall it when I have to use it.
- 27. I know a word if I know its meaning.

---

#### **Vocabulary Learning Strategies Cognitive strategies – Repetition**

- 9. I memorize words by reading them a lot of times.
- 13. I memorize words by writing them a lot of times.
- 34. I memorize words by saying them to myself a lot of times.

---

#### **Vocabulary Learning Strategies Social strategies – Asking for help**

- 12. Someone helps me in learning new words (e.g. family member, relative, friend, etc.).

35. I learn the words alone.

---

**Vocabulary Learning Strategies Memory strategies – Picking up words**

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39. I just pick up the new words.

---

**Vocabulary Learning Strategies Memory strategies – Lexical Processing**

---

17. I can guess the meaning of new words from context.

52. I can guess the meaning of new words if I can see a picture to them.

53. If I can't guess the meaning of a new word, I look it up in the dictionary.

---

**Vocabulary Learning Strategies Memory strategies – Mental pegs**

---

36. If I imagine the meaning of a word it is easier to memorize it.

41. I learn a new word by connecting its meaning to something.

48. I can imagine the meaning of new words easily based on pictures or drawings.

---

**Self-motivation Self-efficacy - Difficulties**

---

14. It is easy to learn how to write words correctly.

44. It is easy to learn the meaning of new words.

46. It is easy to learn how to say words correctly.

---

**Self-motivation Anxiety – Eliminating anxiety**

---

16. I don't feel anxious about learning words.

22. If I feel anxious that I can't learn words, I say to myself that everything will be all right.

32. If I feel anxious that I can't learn words, I learn them till I remember them.

40. If I feel anxious that I can't learn words, I do something else and later I return to it.

---

**Self-regulating capacity Environment control**

---

19. When I start learning words I go into my room and take out my book, exercise book or vocabulary book.

33. When I start learning I make peace around me.

---

**Self-regulating capacity Commitment control**

---

18. If I can't pay attention to learning words, I put away everything, I leave out only English.

30. If I can't pay attention to learning words, I try to concentrate better.

47. If I can't pay attention to learning words, I do something else and later I return to it.

---

**Self-regulating capacity Satiation control**

---

21. If I am bored with learning words, I do something else instead (e.g. eat or drink, play, watch TV, etc.).

37. If I am bored with learning words, I try to learn faster to finish sooner.

54. If I am bored with learning words, I stop it for a while and then I continue.

---

**Self-regulating capacity Emotion control**

25. If I feel stressed about learning words I learn more in order to know them better.

29. If I feel stressed about learning words I try not to think about stress.

42. I do not feel stressed about learning words.

51. If I feel stressed about learning words (e.g. because of written or oral test, etc.) I say it to myself that it will succeed.

---

**Self-motivation Rewarding**

26. After I have learned the words I do something I like (e.g. play computer games, watch TV, etc.).

56. After I have learned the words I reward myself (e.g. I eat something delicious, etc.).

---

**Self-motivation Skilfulness**

31. I learn words efficiently and I have good results.

---

**Self-motivation Satisfaction**

38. I would like to improve my vocabulary by learning, revising, and listening more.

45. I would like to improve my vocabulary by reading or listening to English texts.

49. I use the right strategies for learning words; everything is good as it is.

57. I would like to learn new strategies for learning words.

---

## Appendix 10: Tables belonging to Phase II part 3 of the research

### Appendix 10.1: Descriptive statistics of the individual strategies in the pilot study

Item	N	Mean	Min	Max	SD
Mot 01	80	3.54	2	4	0.55
Mot 02	79	3.65	1	4	0.57
Mot 03	80	3.45	1	4	0.79
Meta 04	80	2.55	1	4	0.79
Meta 05	79	3.03	1	4	0.71
Meta 06	79	2.33	1	4	0.88
Meta 07	79	2.51	1	4	1.03
Meta 08	80	2.38	1	4	0.94
Meta 09	80	3.16	1	4	0.81
Meta 10	78	2.77	1	4	0.75
Meta 11	78	2.76	1	4	0.66
Meta 12	80	3.48	2	4	0.63
Meta 13	80	2.91	1	4	0.76
Meta 14	80	3.41	1	4	0.65
Meta 15	80	3.15	1	4	0.78
Meta 16	80	2.81	1	4	0.91
Meta 17	80	3.16	1	4	0.75
Meta 18	80	3.13	1	4	0.71
Meta 19	80	3.40	1	4	0.66
VLS 20	80	3.20	1	4	0.71
VLS 21	80	2.83	1	4	0.92
VLS 22	78	3.12	1	4	0.86
VLS 23	79	2.42	1	4	0.82
VLS 24	80	2.66	1	4	0.79
VLS 25	80	2.56	1	4	1.04
VLS 26	80	2.56	1	4	0.82
VLS 27	80	3.03	1	4	0.77
VLS 28	80	3.16	1	4	0.81
VLS 29	80	2.88	1	4	0.86
Self-mot 30	79	2.61	1	4	0.80
Self-mot 31	79	2.59	1	4	0.94
Self-mot 32	80	2.88	1	4	0.78
Self-mot 33	80	2.58	1	4	0.93
Self-mot 34	79	2.47	1	4	0.99
Self-mot 35	80	2.86	1	4	0.97
Self-mot 36	80	2.81	1	4	1.08
Self-mot 49	80	2.88	1	4	1.06
Self-mot 50	80	3.56	1	4	0.70
Self-mot 51	80	2.91	1	4	0.67
Self-mot 52	80	3.03	1	4	0.84
Self-mot 53	80	2.84	1	4	0.84
Self-mot 54	79	3.11	1	4	0.93
Self-mot 55	80	2.51	1	4	1.10
SRC 37	79	3.18	1	4	0.88
SRC 38	80	3.21	1	4	0.89
SRC 39	78	2.97	1	4	0.88
SRC 40	79	2.49	1	4	1.07



SRC 41	79	2.63	1	4	1.00
SRC 42	79	2.99	1	4	0.95
SRC 43	80	2.75	1	4	1.13
SRC 44	79	2.65	1	4	1.02
SRC 45	80	2.70	1	4	1.01
SRC 46	80	2.39	1	4	0.97
SRC 47	80	2.50	1	4	1.04
SRC 48	79	2.87	1	4	1.14

Valid N (listwise) 62

## Appendix 10.2: Homogenous subsets of the differences in strategy use in the pilot study

Strategy	Age group	Subset for alpha = 0.05	
		1	2
Mot 08*	1	2.04	
	2	2.32	2.32
	3		2.78
Meta 09	1	2.87	
	2	3.15	3.15
	3		3.48
Meta 10*	1	2.35	
	2		2.94
	3		2.96
Meta 11*	1	2.29	
	3		2.67
	2		2.97
Meta 12*	3	3.22	
	2		3.41
	1		3.83
VLS 21*	2	2.59	
	3	2.70	
	1		3.30
VLS 22*	2	2.88	
	3	3.05	3.05
	1		3.52
VLS 25*	3	2.09	
	2	2.56	2.56
	1		3.04
VLS 26*	1	2.26	
	2	2.53	2.53
	3		2.91
VLS 28*	2	2.94	
	1	3.22	
	3	3.43	
Self-mot 31*	1	2.26	
	2	2.58	2.58
	3		2.96
Self-mot 35*	3	2.65	
	2	2.68	
	1		3.35
SRC 45*	2	2.29	
	3	2.70	

	1		3.30
SRC 47*	2	2.24	
	3	2.39	2.39
	1		3.00
SRC 48	3	2.48	
	2	2.73	2.73
	1		3.24
SRC 50*	2	3.32	
	1	3.65	3.65
	3		3.83
SRC 55	2	2.12	
	1		2.78
	3		2.83

Means for groups in homogeneous subsets are displayed. Tukey B<sup>a,b</sup>

a. Uses Harmonic Mean Sample Size = 25,780.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

\* There is significant statistical difference between two of the age groups.

## Appendix 11: Quantitative questionnaire – Final version

### Appendix 11.1: Quantitative questionnaire – Final version (Hungarian)

#### Kérdőív az angol szókincstanulási stratégiákról

Karikázd be a rád vonatkozó válasz számát! (Mindenhol csak egyet!)

- 1 Nemed: 1. Fiú 2. Lány  
2 Osztály: 3. 4. 5. 6. 7. 8.  
3 Hány angolórát van egy héten az iskolában? 1 2 3 4 5 több  
4 Hány éve tanulsz angolul: 1 2 3 4 5 6 7 8 több  
5 Előző félévi jegyed angolból: 1 2 3 4 5  
6 Az angolon kívül tanulsz másik idegen nyelvet is? 1. nem 2. igen (melyiket?) .....  
7 Szereted az angolt? 1. nagyon nem 2. nem 3. is-is 4. szeretem 5. nagyon szeretem

Az alábbiakban arról kérdezlek, hogyan tanulsz az angol szavakat.

Kérlek karikázd be azt a számot, amelyről azt gondold, hogy leginkább illik rád. Mindenhol csak egy számot jelölj meg! Nincsenek jó vagy rossz válaszok, és minden válasz egyaránt fontos. A számok jelentése a következő:

**1 nagyon nem értek egyet 2 nem értek egyet 3 egyetértek 4 teljesen egyetértek**

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. Fontos a szavakat tanulni, mert az angol világnyelv és sok mindenhez kell.                                | 1 | 2 | 3 | 4 |
| 2. Szívesen beszélnék többet angolul, hogy bővüljön a szókincsem.  | 1 | 2 | 3 | 4 |
| 3. Ki tudom magam fejezni angol nyelven.   | 1 | 2 | 3 | 4 |
| 4. A szókincsem angol nyelvű könyvek olvasásával szeretném bővíteni.   | 1 | 2 | 3 | 4 |
| 5. Fontos a szótanulás, hogy ha külföldre megyek meg tudjam magam értetni.                                   | 1 | 2 | 3 | 4 |
| 6. Angol nyelvű zene hallgatásával sok új szót tanulok, ezzel bővül a szókincsem.                            | 1 | 2 | 3 | 4 |
| 7. Meg tudom magam értetni angolul.  | 1 | 2 | 3 | 4 |
| 8. Akkor tudok egy szót, ha mondatban is tudom használni.  | 1 | 2 | 3 | 4 |
| 9. A szavakat úgy jegyzem meg, hogy sokszor átolvasom őket.  | 1 | 2 | 3 | 4 |
| 10. Szerintem nem fontos az angol szavakat tanulni.  | 1 | 2 | 3 | 4 |
| 11. Akkor tudok egy szót, ha tudom, hogy kell helyesen kiejteni.   | 1 | 2 | 3 | 4 |
| 12. Az új szavak tanulásában segít valaki (pl. családtag, rokon, barát, stb.).                               | 1 | 2 | 3 | 4 |
| 13. A szavakat úgy jegyzem meg, hogy sokszor leírom őket.  | 1 | 2 | 3 | 4 |
| 14. Könnyű megtanulni helyesen írni a szavakat.  | 1 | 2 | 3 | 4 |
| 15. Iskolán kívül, az interneten, különböző oldalakon tanulok angol szavakat.                                | 1 | 2 | 3 | 4 |
| 16. Nem szoktam izgulni a szótanulás miatt.  | 1 | 2 | 3 | 4 |
| 17. Az új szavak jelentését ki tudom találni a szöveggörnyezetből.   | 1 | 2 | 3 | 4 |
| 18. Ha elkalandozik a figyelmem szótanulás közben, mindent elteszek, csak az angolt hagyom elől.             | 1 | 2 | 3 | 4 |
| 19. Amikor elkezdem a szótanulást bemegyek a szobámba és előveszem a füzetet, könyvet, vagy a szótárfüzetet. | 1 | 2 | 3 | 4 |

20. Akkor tudok egy szót, ha tudom, hogy kell helyesen leírni.	1	2	3	4
21. Ha unom a szótanulást, csinállok valami mást (pl. eszem, iszom, játszom, TV-zek, stb.).	1	2	3	4
22. Ha izgulok, hogy nem tudom megtanulni a szavakat, arra gondolok, hogy biztos minden rendben lesz.	1	2	3	4
23. Angol nyelvű filmek nézésével bővítem a szókincsem.	1	2	3	4
24. Akkor tudok egy szót, ha mindig eszembe jut, amikor használnom kell.	1	2	3	4
25. Ha stresszesnek érzem a szótanulást, még többet tanulok, hogy jobban tudjam.	1	2	3	4
26. Ha megtanultam a szavakat csinállok valamit, amit szeretek (pl. számítógépezek, tévézek, stb.)	1	2	3	4
27. Akkor tudok egy szót, ha tudom mit jelent.	1	2	3	4
28. Gyakran átismétlem a szavakat, hogy ne felejtsem el őket.	1	2	3	4
29. Ha stresszesnek érzem a szótanulást, nem gondolok a stresszre.	1	2	3	4
30. Ha elkalandozik a figyelmem szótanulás közben, próbálok még jobban koncentrálni.	1	2	3	4
31. Hatékonyan és eredményesen tanulom a szavakat.	1	2	3	4
32. Ha izgulok, hogy nem tudom megtanulni a szavakat, addig tanulom őket, amíg megmaradnak.	1	2	3	4
33. Ha elkezdek tanulni, nyugalmat teremtek magam körül.	1	2	3	4
34. A szavakat úgy jegyzem meg, hogy sokszor elmondom őket magamnak.	1	2	3	4
35. A szavakat egyedül szoktam megtanulni.	1	2	3	4
36. Ha elképzelem a szó jelentését, akkor könnyebb megjegyezni.	1	2	3	4
37. Ha unom a szótanulást, gyorsabban kezdek tanulni, hogy hamarabb végezzek.	1	2	3	4
38. A szótanulásomat hatékonyabbá szeretném tenni több tanulással, ismétléssel, odafigyeléssel.	1	2	3	4
39. Az új szavak csak úgy megragadnak.	1	2	3	4
40. Ha izgulok, hogy nem tudom megtanulni a szavakat, valami mást csinállok, majd újból előveszem.	1	2	3	4
41. Egy új szót úgy jegyzek meg, hogy kötöm valamihez a jelentését.	1	2	3	4
42. Nem szoktam stresszes lenni a szótanulás miatt.	1	2	3	4
43. Számítógépes játékokat játszom, hogy gyarapodjon a szókincsem.	1	2	3	4
44. Könnyű megtanulni az új szavak jelentését.	1	2	3	4
45. A szótanulásomat hatékonyabbá szeretném tenni angol szövegek olvasásával, hallgatásával.	1	2	3	4
46. Könnyű megtanulni az új szavak kiejtését.	1	2	3	4
47. Ha elkalandozik a figyelmem szótanulás közben, csinállok valami mást, majd visszatérek hozzá.	1	2	3	4
48. Könnyen el tudom képzelni a szavak jelentését képek vagy rajzok alapján.	1	2	3	4
49. A szótanulási módszereimmel elégedett vagyok, jó így, ahogy van.	1	2	3	4

50. Egyre több mondatot tudok alkotni, mert egyre több szót tudok.	1	2	3	4
51. Ha stresszesnek érzem a szótanulást (pl. szódolgozat, felelés miatt, stb.), azt mondom magamnak, hogy jól fog sikerülni.	1	2	3	4
52. Az új szavak jelentését ki tudom találni, ha látok hozzá képet.	1	2	3	4
53. Ha egy új szó jelentését nem tudom kitalálni, kiszótározom.	1	2	3	4
54. Ha unom a szótanulást, egy kis időre abbahagyom, majd folytatom.	1	2	3	4
55. Sok szót kell még tanulnom, hogy boldoguljak angolul.	1	2	3	4
56. Ha megtanultam a szavakat megjutalmazom magam (pl. eszem valami finomat, stb.).	1	2	3	4
57. Szeretnék új módszereket tanulni a szótanulásra.	1	2	3	4

## Appendix 11.2: Quantitative questionnaire – Final version (English – translated)

### Questionnaire about learning English vocabulary

Circle the number of the answer that is true for you: (Only one answer at each question!)

- 1 Your sex: 1. Male 2. Female
- 2 Class: 3 4 5 6 7 8
- 3 How many English lessons do you have at school a week? 1 2 3 4 5 more
- 4 How many years have you been learning English for? 1 2 3 4 5 6 7 8 more
- 5 Your last term English grade: 1 2 3 4 5
- 6 Are you learning another language besides English?  
1. no 2. yes If yes, state which one. (.....)
- 7 Do you like English?  
1. I hate it 2. I don't like it 3. so-so 4. I like it 5. I like it very much

This questionnaire asks you about how you learn English words.

Please circle the number which you think is true for your vocabulary learning in English. Circle one number only at each question! There are no right or wrong answers, and your answers are equally important. The numbers mean the following:

**1 strongly disagree**

**2 disagree**

**3 agree**

**4 strongly agree**

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. It is important to learn words because English is a world language and it is needed to a lot of things. | 1 | 2 | 3 | 4 |
| 2. I would like to speak English more so that my vocabulary can improve.                                   | 1 | 2 | 3 | 4 |
| 3. I can express myself in English.  | 1 | 2 | 3 | 4 |
| 4. I would like to improve my vocabulary by reading books in English.                                      | 1 | 2 | 3 | 4 |
| 5. Learning words is important so that I can make myself understood if I travel abroad.                    | 1 | 2 | 3 | 4 |
| 6. When I listen to English music I learn a lot of new words and my vocabulary improves.                   | 1 | 2 | 3 | 4 |
| 7. I can make myself understood in English.  | 1 | 2 | 3 | 4 |
| 8. I know a word if I can use it in a sentence.  | 1 | 2 | 3 | 4 |
| 9. I memorize words by reading them a lot of times.  | 1 | 2 | 3 | 4 |
| 10. I don't think learning words is important.   | 1 | 2 | 3 | 4 |
| 11. I know a word if I can say it correctly.   | 1 | 2 | 3 | 4 |
| 12. Someone helps me in learning new words (e.g. family member, relative, friend, etc.).                   | 1 | 2 | 3 | 4 |
| 13. I memorize words by writing them a lot of times.   | 1 | 2 | 3 | 4 |
| 14. It is easy to learn how to write words correctly.  | 1 | 2 | 3 | 4 |
| 15. Besides school, I learn words at different pages of the internet.                                      | 1 | 2 | 3 | 4 |
| 16. I don't feel anxious about learning words.   | 1 | 2 | 3 | 4 |
| 17. I can guess the meaning of new words from context.   | 1 | 2 | 3 | 4 |
| 18. If I can't pay attention to learning words, I put away everything, I leave out only English.           | 1 | 2 | 3 | 4 |
| 19. When I start learning words I go into my room and take out my book, exercise book or vocabulary book.  | 1 | 2 | 3 | 4 |

20. I know a word if I can write it correctly.	1	2	3	4
21. If I am bored with learning words, I do something else instead (e.g. eat or drink, play, watch TV, etc.).	1	2	3	4
22. If I feel anxious that I can't learn words, I say to myself that everything will be all right.	1	2	3	4
23. I improve my vocabulary by watching films in English.	1	2	3	4
24. I know a word if I can always recall it when I have to use it.	1	2	3	4
25. If I feel stressed about learning words I learn more in order to know them better.	1	2	3	4
26. After I have learned the words I do something I like (e.g. play computer games, watch TV, etc.).	1	2	3	4
27. I know a word if I know its meaning.	1	2	3	4
28. I often review the English words in order not to forget them.	1	2	3	4
29. If I feel stressed about learning words I try not to think about stress.	1	2	3	4
30. If I can't pay attention to learning words, I try to concentrate better.	1	2	3	4
31. I learn words efficiently and I have good results.	1	2	3	4
32. If I feel anxious that I can't learn words, I learn them till I remember them.	1	2	3	4
33. When I start learning I make peace around me.	1	2	3	4
34. I memorize words by saying them to myself a lot of times.	1	2	3	4
35. I learn the words alone.	1	2	3	4
36. If I imagine the meaning of a word it is easier to memorize it.	1	2	3	4
37. If I am bored with learning words, I try to learn faster to finish sooner.	1	2	3	4
38. I would like to improve my vocabulary by learning, revising, and listening more.	1	2	3	4
39. I just pick up the new words.	1	2	3	4
40. If I feel anxious that I can't learn words, I do something else and later I return to it.	1	2	3	4
41. I learn a new word by connecting its meaning to something.	1	2	3	4
42. I do not feel stressed about learning words.	1	2	3	4
43. I play computer games in order to improve my vocabulary.	1	2	3	4
44. It is easy to learn the meaning of new words.	1	2	3	4
45. I would like to improve my vocabulary by reading or listening to English texts.	1	2	3	4
46. It is easy to learn how to say words correctly.	1	2	3	4
47. If I can't pay attention to learning words, I do something else and later I return to it.	1	2	3	4
48. I can imagine the meaning of new words easily based on pictures or drawings.	1	2	3	4
49. I use the right strategies for learning words; everything is good as it is.	1	2	3	4

50. I am able to form more and more sentences, because I know more and more words.	1	2	3	4
51. If I feel stressed about learning words (e.g. because of written or oral test, etc.) I say it to myself that it will succeed.	1	2	3	4
52. I can guess the meaning of new words if I can see a picture to them.	1	2	3	4
53. If I can't guess the meaning of a new word, I look it up in the dictionary.	1	2	3	4
54. If I am bored with learning words, I stop it for a while and then I continue.	1	2	3	4
55. I have to learn a lot of words to succeed in English.	1	2	3	4
56. After I have learned the words I reward myself (e.g. I eat something delicious, etc.).	1	2	3	4
57. I would like to learn new strategies for learning words.	1	2	3	4



## Appendix 12: Tables belonging to Phase III

### Appendix 12.1: Descriptive statistics of the items in descending order in the main study

Item	N	Mean	Min	Max	SD
Mot 05	331	3.72	1	4	0.51
Mot 10	331	3.60	1	4	0.75
Mot 01	331	3.60	1	4	0.55
Self-mot 26	331	3.50	1	4	0.75
Meta 27	331	3.49	1	4	0.65
Meta 55	331	3.38	1	4	0.73
Meta 50	331	3.38	1	4	0.68
SRC 19	331	3.24	1	4	0.84
Meta 24	331	3.19	1	4	0.85
VLS 35	331	3.18	1	4	0.92
VLS 53	331	3.17	1	4	0.84
Self-mot 49	331	3.15	1	4	0.84
Meta 02	331	3.12	1	4	0.70
Meta 06	331	3.12	1	4	0.91
Self-mot 46	331	3.10	1	4	0.85
VLS 34	331	3.09	1	4	0.82
Self-mot 31	331	3.07	1	4	0.70
SRC 30	331	3.05	1	4	0.88
VLS 09	331	3.02	1	4	0.86
VLS 52	331	3.02	1	4	0.87
VLS 48	331	3.01	1	4	0.84
Self-mot 32	331	3.00	1	4	0.82
Self-mot 38	331	3.00	1	4	0.84
Meta 28	331	2.98	1	4	0.85
SRC 42	331	2.97	1	4	0.98
SRC 51	331	2.97	1	4	0.93
SRC 33	331	2.97	1	4	0.90
Self-mot 16	331	2.94	1	4	0.93
VLS 41	331	2.93	1	4	0.88
Meta 07	331	2.93	1	4	0.64
Meta 20	331	2.90	1	4	0.89
Meta 11	331	2.88	1	4	0.91
Meta 03	331	2.87	1	4	0.60
Self-mot 45	331	2.85	1	4	0.91
VLS 17	331	2.85	1	4	0.79
VLS 36	331	2.82	1	4	0.94
Meta 08	331	2.79	1	4	0.99
SRC 54	331	2.77	1	4	0.97
SRC 29	331	2.75	1	4	0.95
Self-mot 44	331	2.72	1	4	0.87
Self-mot 22	331	2.71	1	4	1.00
Self-mot 47	331	2.70	1	4	1.01
Self-mot 56	331	2.69	1	4	1.06
Self-mot 57	331	2.68	1	4	1.05
Self-mot 40	331	2.66	1	4	1.04

SRC 21	331	2.64	1	4	1.07
VLS 12	331	2.63	1	4	1.08
Meta 23	331	2.63	1	4	1.02
SRC 37	331	2.57	1	4	1.04
Self-mot 14	331	2.55	1	4	0.86
SRC 18	331	2.53	1	4	0.97
VLS 39	331	2.45	1	4	0.96
Meta 04	331	2.44	1	4	0.89
SRC 25	331	2.44	1	4	1.01
VLS 13	331	2.41	1	4	0.99
Meta 43	331	2.38	1	4	1.11
Meta 15	331	2.31	1	4	1.03

Valid (listwise) 331

## Appendix 12.2 Homogenous subsets of the differences in strategy use in the main study

Strategy	Age group	Subset for alpha = 0.05		
		1	2	3
Mot 10	3*	3.49		
	2	3.63	3.63	
	1*		3.77	
Meta 02	3*	3.00		
	2*	3.08		
	1**		3.41	
Meta 03	2*	2.76		
	3	2.88	2.88	
	1*		3.04	
Meta 04	2*	2.19		
	3*	2.42		
	1**		2.93	
Meta 07	2*	2.86		
	3*	2.87		
	1**		3.16	
Meta 08	3*	2.65		
	2	2.80	2.80	
	1*		3.03	
Meta 11	3*	2.68		
	2*	2.78		
	1**		3.40	
Meta 15	2**	2.11		
	3*	2.40	2.40	
	1*		2.49	
Meta 24	2*	3.08		
	3*	3.15		
	1**		3.45	
Meta 28	3**	2.70		
	2*		3.06	
	1*			3.32
Meta 50	3*	3.26		
	2	3.38		
	1*		3.59	

VLS 09	3*	2.86		
	2	3.09	3.09	
	1*		3.18	
VLS 12*	3	2.17		
	2		2.73	
	1			3.29
VLS 13	3*	2.29		
	2*	2.34		
	1**		2.77	
VLS 17	2	2.78		
	3	2.81		
	1		3.05	
VLS 35	1**	2.66		
	2*		3.24	
	3*		3.43	
VLS 36	3*	2.64		
	2	2.82		
	1*		3.12	
VLS 48	3*	2.81		
	2*	2.95		
	1**		3.45	
VLS 52	3**	2.80		
	2*		3.08	
	1*		3.26	
Self-mot 16	2**	2.68		
	3*		3.03	
	1*		3.25	
Self-mot 22	3*	2.53		
	2*	2.65		
	1**		3.12	
Self-mot 31	3	3.01		
	2	3.02		
	1		3.29	
Self-mot 32	3*	2.78		
	2*	2.99		
	1**		3.40	
Self-mot 38	3*	2.74		
	2*		3.04	
	1**			3.37
Self-mot 45	3*	2.73		
	2*	2.76		
	1**		3.23	
Self-mot 57	2*	2.54		
	3*	2.57		
	1**		3.10	
SRC 18	3*	2.33		
	2	2.62	2.62	
	1*		2.70	
SRC 21	1*	2.36		
	2	2.65	2.65	
	3*		2.79	
SRC 25	3**	2.17		
	2*		2.53	
	1*		2.75	

SRC 29	3*	2.59	
	2*	2.63	
	1**		3.22
SRC 30	3*	2.85	
	2*	3.02	
	1**		3.44
SRC 33	3*	2.82	
	2*	2.89	
	1**		3.36
SRC 54	1	2.51	
	3		2.84
	2		2.85

Tukey B<sup>a,b</sup> Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 102,718.

b. The group sizes are unequal. The harmonic mean of the group sizes is used.

Type I error levels are not guaranteed.

\* next to the strategy means that mean differences are significant between all the age groups

\* next to the age group means that mean differences are significant between two age groups

\*\* next to the age group means that mean differences are significant in this age group compared to another two age groups